Appendix J
Transportation Management
Plan Report

Traffic Operational Analysis Report

Transportation Management Plan Report

VIRGINIA AVENUE TUNNEL RECONSTRUCTION PROJECT WASHINGTON, DC

PRELIMINARY TRANSPORTATION MANAGEMENT PLAN

DRAFT

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ACRONYMS AND ABBREVIATIONS

ADA Americans with Disabilities Act of 1990

DC District of Columbia

DCPS District of Columbia Public Schools
DCWater DC Water and Sewer Authority

DDOT District Department of Transportation

EB Eastbound

FEMS Fire and Emergency Medical Services

LOS Level of Service

MOE Measures of Effectiveness
MOT Maintenance of Traffic
MTA Maryland Transit Authority

MPD Metropolitan Police Department

MPH Miles Per hour NB Northbound

PCMS Portable Changeable Message Signs

PIO Public Information Officer or Public Information and Outreach

PIP Project Information Plan ROP Roadway Operations Patrol

SB Southbound SE Southeast

SOC Sequence of Construction

TMC Transportation Management Center
TMP Transportation Management Plan

TO Transportation Operations
TTCP or TCP Temporary Traffic Control Plan

VAT Virginia Avenue Tunnel VRE Virginia Railway Express

WB Westbound

WMATA Washington Metropolitan Area Transit Authority

STANDARDS

The following traffic control standards are utilized for the design of the temporary traffic control plans (TTCPs):

District Department of Transportation (DDOT) *Standard Specifications for Highways and Structures*, 2009.

DDOT Temporary Traffic Control Manual, 2006.

DDOT Standard Drawings for Highways and Structures, April 2009.

DDOT Pedestrian Safety and Work Zone Standards, December 2007.

DDOT Design and Engineering Manual, April 2009.

Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices, 2009.

DDOT Work Zone Safety and Mobility Policy, October 2007.

DDOT Utility Work Zone Typicals.

Contractors Handbook for CSX Roadway Worker Protection, 2011

INTRODUCTION

1.1 PURPOSE OF TMP

This Transportation Management Plan (TMP) lays out a set of coordinated transportation management strategies and describes how they would be used to manage the work zone impacts of the Virginia Avenue Tunnel Reconstruction Project. Transportation management strategies for a work zone can include temporary traffic control measures and devices, public information and outreach, and operational strategies such as travel demand management, signals retiming, and traffic incident management.

The goals of the TMP are to help:

- Address the broader safety and minimize mobility impacts of work zones.
- Promote more efficient and effective construction phasing and staging to minimize contract duration and control costs.
- Improve work zone safety for construction workers and the traveling public.
- Improve public awareness.
- Minimize complaints from the traveling public and local businesses and communities.
- Minimize circulation, access, and mobility impacts to local communities and businesses.
- Improve intra- and inter-agency coordination.

1.2 PROJECT DESCRIPTION

CSX Transportation, Inc. (CSX) is proposing to reconstruct the Virginia Avenue Tunnel. The tunnel is located in the Capitol Hill neighborhood of the District of Columbia beneath east-bound Virginia Avenue SE from 2nd Street SE to 9th Street SE, Virginia Avenue Park and the 11th Street Bridge right-of-way between 9th and 11th Streets SE, and is aligned on south side of Interstate 695 (I-695). The tunnel portals are located a short distance west of 2nd Street SE and a short distance east of 11th Street SE. CSX also owns or has easements of the rail lines immediately east and west of the tunnel. The tunnel and rail lines running through the District are part of CSX's eastern seaboard freight rail corridor, which connects Mid-Atlantic and Midwest states.

The CSX proposal includes the complete reconstruction of the tunnel, which was built over 100 years ago. In addition to its age, the tunnel is also a bottleneck to the freight rail network with its single-track configuration and with a vertical clearance that does not allow for double-stack intermodal container freight trains. The Project will transform the tunnel to a two-track configuration, matching the number of tracks immediately east and west of the tunnel, and provide the minimum 21 feet of vertical clearance to allow double-stack intermodal container freight

train operations. This will allow more efficient freight movement, especially in light of expected increases in freight volume. Reconstructing the tunnel to allow double-stack intermodal container freight trains would require lowering the grade below the rail line's New Jersey Avenue SE Overpass to provide the 21-foot minimum clearance. **Figure 1-1** below shows the project location.

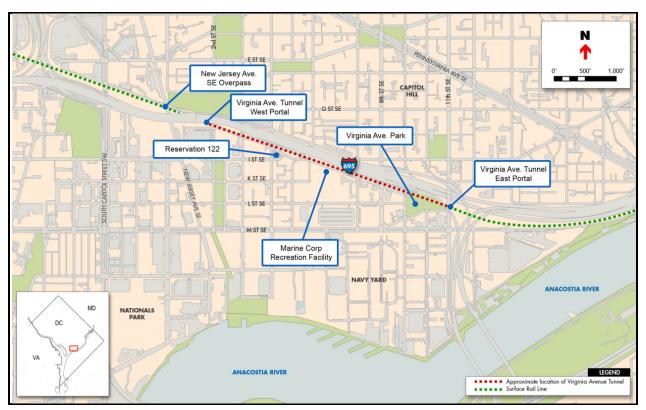


Figure 1-1. Project Location Map

1.3 ALTERNATIVES

Currently, there are four alternatives for the reconstruction of the tunnel:

- 1. **No-Build Alternative (Alternative 1)** does not reconstruct the tunnel, and performs only emergency repairs as needed to ensure the structural integrity of the tunnel. Train operations would remain the same as in existing conditions.
- 2. **Alternative 2** consists of reconstruction of a new double track/double stack tunnel within the footprint of the existing tunnel. A temporary track will be constructed in an open trench within the footprint of Virginia Avenue SE, just south of the existing tunnel to serve as a detour for train traffic during construction. This temporary track will join the existing track at the west end near the New Jersey Avenue SE overpass, and at the east end east of the 11th Street Bridge interchange in the vicinity of 14th Street SE. Upon completion of the reconstruction of the new permanent double track/double stack tunnel, the temporary detour track trench will be removed, and the Virginia Avenue SE roadway and other disturbed areas will be backfilled and the surface restored.

- 3. **Alternative 3** consists of new construction of two single track/double stack tunnels. One single track/double stack tunnel will be constructed in a trench and then backfilled within the footprint of Virginia Avenue SE, just south of the existing tunnel. Although constructed as a permanent tunnel, this track will also serve as a detour for train traffic in a closed tunnel during the reconstruction of the second single track/double stack tunnel within the footprint of the existing tunnel. The new permanent track will join the existing track at the west end near the New Jersey Avenue SE overpass, and at the east end east of the 11th Street Bridge interchange in the vicinity of 14th Street SE. Upon completion of the construction/reconstruction of the two new permanent single track/double stack tunnels, the Virginia Avenue SE roadway and other disturbed areas will be restored.
- 4. Alternative 4 consists of reconstruction of a new double track/double stack tunnel within the footprint of the existing tunnel while train traffic continues to operate along the corridor. This will involve an extremely complex sequence of steps that are all completed immediately adjacent to and/or over active rail tracks. A moveable shield, approximately 400 feet long, will be employed to protect trains as they move through the work area. The existing tunnel roof and south wall will be demolished and a new south wall and new track will be constructed. The process is to work on one segment of the tunnel at a time and then move to the next section, starting at the west end and working eastwards. Once the new south track is constructed, trains will be shifted onto the new track and work will focus on the existing tracks. The north wall and existing tracks will be demolished and the new north wall and north track will be constructed. Once the new roof of the tunnel is constructed, the Virginia Avenue SE roadway and other disturbed areas will be restored.

PROJECT COMMUNICATION AND COORDINATION

2.1 KEY STAKEHOLDERS

The involvement of stakeholders is a key part of the project communication. The stakeholders who are involved in the project or whose work or interest might be affected by the project are identified below.

CSX Contact

Name: Chuck Gullakson Title: Assistant Chief Engineer Phone: 904-359-1114

Email: chuck.gallakson@csx.com

DDOT Media Contact

Name: John Lisle Phone: 202-671-2004 Email: john.lisle@dc.gov

DDOT Regional Command Centers

District Emergency Management: 202-727-6161 DDOT Traffic Management Center: 202-671-DDOT WMATA Operations Control Center: 202-962-1166 Homeland Security Operations Center: 800-BE-READY Department of Public Works Debris Management

Center: 202-673-6833

Fire and Emergency Medical Services (FEMS) Operations

Center: 911

Washington Metropolitan Area Transit Authority (WMATA)

Name: Alexa Samuels Title: Chief Safety Officer Unit: WMATA Safety Division Phone: 202-962-2297

Email: adsamuels@wmata.com

Fire and Emergency Medical Services (FEMS)

Name: Engine 7 Station Address: 1101 Half Street, SW

Phone: 202-673-3207

Email: jonathan.sneed@dc.gov; porter.lawson@dc.gov

Name: Engine Company 18 Address: 414 8th Street, SE

Phone: 202-673-3218

Metropolitan Police Department (MPD)

Police Non Emergencies: 311

MPD Command center: 202-727-9099

Name: Air Support Unit

Address: 1724 South Capitol Street

Phone: 202-727-6498 Lt. McCoy: 202-727-6498

Name: Washington DC Police Department

Address: 500 E Street, SE Phone: 202-698-0068

Name: First District Station Address: 101 M Street, SW Phone: 202-698-0555

United States Park Police

Name: LT. Maroney Phone: 202-610-7500

Churches

St Pauls Aump Church Address: 401 1st Street, SE Phone: 202-543-3098

St. Matthew's Baptist Church

Address: 1105 New Jersey Avenue Southeast,

Washington, DC Phone: 202-488-7298

Christ Church Wa Parish Address: 620 G Street SE Washington, DC 20003 Phone: 202-547-9300

St. Vincent De Paul Catholic Church

Address: South Capitol, SE and M Street, SE

Marine Barracks (Friday Evening Parades)

Health Care Providers

Name: DC Government Anacostia Health Center

Address: 1328 W Street, SE Phone: 202-610-7160 Email: NA (Michelle Chevalier)

Name: Gambro Healthcare of GW Address: 3857 Pennsylvania Avenue, SE

Phone: 202-581-9440 Fax: 202-581-9446

Name: Washington Nursing Facility Address: 2425 25th Street, SE

Phone: 202-889-3600 Email: Chris Winston

Name: Woodland Terrace Family Clinic Address: 2707 Half Langston Street

Phone: 202-678-0126 Fax: 202-678-0176

Name: Children's Health Center at Good Hope Rd

Address: 2501 Good Hope Road, SE

Phone: 202-476-6900

Name: Good Hope Health Center Address: 1638 Good Hope Road, SE Phone: 202-610-7280 Fax: 202-610-0555

Schools

District of Columbia Public Schools

Name: Keith Pettigrew Title: Operations Director Phone: 202-576-6228

Email: keith.pettigrew@dc.gov

Eagle Academy Public Charter School:

Address: 770 M Street, SE

Eagle Academy New Jersey Avenue Campus Address: 1017 New Jersey Avenue, SE

Phone: 202-544-2646

Capitol Hill Day School

Address: 210 South Carolina Avenue, SE

Phone: 202-547-2244

Brent Elementary School Name: Peter Young - Principal

Address: 301 North Carolina Avenue, SE

Phone: 202-698-3363

Tyler Elementary School

Name: Jennifer Fentress - Principal

Address: 1001 G St. SE

Property Owners along Virginia Avenue

DC Square No: 766, 200 I Street, SE – Location:

The Adjunct, Marine Barracks, 8th & Eye Streets, SE

(202) 433-4073 or 202-433-6060

Nationals Stadium

Phone: 202-640-7368

Utility Owners

DDOT Public Space Utility Coordinator

Name: Thomas Fulton Email: thomas.fulton@dc.gov Phone: 202-478-9193

Pepco

Name: Robert Brown Email: rcbrown@pepco.com Phone: 202-388-2602

DC Water

Name: Jodye Russel

Email: jodye.russel@dcwasa.com

Phone: 202-787-2248

Washington Gas Name: Vijay Parmesan

Email: vparmesn@washgas.com

Phone: 703-750-4391

Verizon

Name: Gabor Varsa

Email: gabor.i.varsa@verizon.com

Phone: 301-282-7031

DDOT Street Lighting Phone: 202-269-0855

DDOT Traffic Signals Phone: 202-671-1486 Between 2nd Street, SE and 3rd Street, SE

Capitol Quarters, DC Square No: 797 – Location: Between 3rd Street, SE and 4th Street, SE

AUMP Church and Capitol Quarters, DC Square No: 824 – Location: Between 4th Street, SE and 5th Street, SE

Capitol Seniors #1, DC Square No: 880, Address: 900 5th Street, SE – Location: On 5th Street, SE between K Street, SE and Virginia Avenue, SE Phone: 202-675-9088

Marine Corps Bachelor Enlisted Quarters Location: on 7th Street, SE between L Street, SE and Virginia Avenue, SE

The National Community Church, DC Square No: 906 – Location: Between 7th Street, SE and 8th Street, SE

Empty Parking Lot, DC Square No: 829 – Location: Between 8th Street, SE and 9th Street, SE

808-810 L Street, SE, DC Square No: 829 – Location: Between 8th Street, SE and 9th Street, SE

DOG-MA, DC Square No: 829 – Location: Between 8th Street, SE and 9th Street, SE (See **Figure A-1** for a detail property owner tabulation)

2.2 OTHER PROJECTS IN THE AREA

Successful project completion would require significant coordination between several contractors working concurrently in the project vicinity. There are two major projects in the surrounding area: the 11th Street Bridge Project and the DC Water's Clean Rivers Program. In addition to these two, several other parcels along Virginia Avenue, SE are under construction or would be constructed during the project duration. The Clark/Parsons team would coordinate with these projects to minimize traffic disruptions and to discuss construction staging to address issues of mobility, safety, and overall operations of the corridor. It shall be noted that it is not only Clark/Parsons' responsibility to coordinate with any other contractors in the area, but it is also the responsibility of other contractors, as well as DDOT, to ensure two-way communication of new and ongoing projects.

11[™] STREET PROJECT

Key elements of the completion of the project include the following:

- Adding an additional lane out of the city along Southeast/Southwest Freeway (I-695).
- Adding an additional intersection along I-695 at 11th Street, SE.
- Converting Southeast/Southwest Freeway into a boulevard between 11th St, SE and Pennsylvania Ave, SE.

The following milestones of the 11th Street Project schedule will have a direct impact on Virginia Avenue Tunnel construction phasing and traffic operations. The milestones here are except from 11th Street Project schedule dated May, 2012.

- New connector from the Southeast Freeway to 11th Street (Ramp D-4) opens to traffic in summer of 2014
- New connector to Southeast Boulevard opens to traffic in summer 2014
- 11th Street reconstruction over the Southeast Freeway till summer 2015, note that one lane in each direction maintained at all times.

DC WATER'S CLEAN RIVERS PROJECT

Under the project, Combined Sewer Overflow(CSO) units would be diverted from existing combined sewers using three diversion chambers, then conveyed to the future tunnel system along M Street, SE through a series of 48-inch and 108-inch diameter diversion sewers constructed using trenchless methods. The work also includes the rehabilitation of selected portions of the Eastside Interceptor (ESI) sewer and the Southeast Relief Water Main (SRWM).

- Estimated construction start: Summer 2012
- Estimated construction completion: Summer 2014

Access to some buildings along M Street, SE would be limited during construction and repaving. Parking along M Street would be restricted between 8th and 9th Streets and 12th and 13th Streets. There would be multiple lane closures at 9th and 12th Streets, SE to allow construction of diversion chambers. M Street, SE, at the intersection of the 14th Street, SE right of way and Water Street, would be completely closed to traffic at times to allow construction of a diversion chamber and insertion of tunnel equipment.

PARK CHELSEA (DC SQUARE 737)

This property is located at 880 New Jersey Avenue, just south of the Southeast Freeway, and is bordered by New Jersey Avenue, 2nd Street, SE, H Street, SE and eventually the reconstituted I Street, SE. The first phase, a 430-unit apartment building called the Park Chelsea, is under construction and expected to be completed in 2014.

3 EXISTING CONDITIONS

3.1 ROADWAY CHARACTERISTICS

Table 3-1 shows the characteristics of the roadways within the study area.

Table 3-1. Roadway Characteristics

ROADWAY NAME	FUNCTIONAL CLASS	NO. OF LANES*	PARKING	SIDEWALKS	BIKE LANE
Virginia Avenue , SE Eastbound (From New Jersey Avenue to 4 th Street, SE)	Local	1 lane each direction	Yes	Yes	No
Virginia Avenue , SE Eastbound (From 4 th Street, SE to 9 th Street, SE)	Collector	2 lanes (EB)	Yes	Yes	No
Virginia Avenue , SE Westbound (From 7 th Street, SE to 3 rd Street, SE)	Collector	2 lanes (WB)	Yes	Yes	No
M Street , SE	Minor Arterial	3 lanes each direction	Yes	Yes	No
South Capitol Street	Principal Arterial	3 lanes each direction	No	Yes	No
L Street , SE	Local Road	1 lane each direction	Yes	Yes	No
I Street , SE	Collector	3 lanes (WB)	Yes	Yes	No
3 rd Street , SE	Local Road	1 lane each direction	Yes	Yes	No
4 th Street , SE	Collector	1 lane (SB)	Yes	Yes	Yes
5 th Street , SE	Collector	1 lane (NB)	Yes	Yes	No
6 th Street , SE	Collector	1 lane (NB)**	Yes	Yes	Yes
7 th Street , SE	Local Road	1 lane each direction	Yes	Yes	No
8 th Street , SE	Minor Arterial	1 lane each direction	Yes	Yes	No
11 th Street , SE	Minor Arterial	2 lanes each direction	Yes	Yes	No

^{*} turn lanes not included in lane tally. For example, $5^{th}/6^{th}$ Street SE as it passes under the Southeast Freeway has additional turn lanes that are not shown in this table.

As seen in Table 3-1, the major corridors in the study area are South Capitol Street and M Street, SE. Virginia Avenue, SE provides a one-way eastbound-westbound on south and north of the Southeast Freeway, respectively. The key roadways are discussed below in more detail.

VIRGINIA AVENUE, SE

Within the project limits, Virginia Avenue, SE runs southeast from 2nd Street, SE to 9th Street, SE. The functional classification of this street is "local" from New Jersey Avenue to 4th Street, SE and "collector" from 4th Street, SE to 9th Street, SE. The majority of traffic that exits the southeast freeway merges onto Virginia Avenue at 5th Street, SE and is destined to the office and employment centers to the north of M Street. The intersections with 2nd Street, 3rd Street, 4th Street and

^{**} section from M to K Streets SE is two-way.

9th Street are controlled by stop signs. The intersections with 5th/6th Streets, 7th Street, and 8th Street are signalized. On-street parking is provided via variable rate meters. The land use to the south of Virginia Avenue is residential medium density.

SOUTH CAPITOL STREET

South Capitol Street, SE is a two-way principal arterial running north-south. South Capitol Street has three lanes operating in each direction. The posted speed limit is 25 miles per hour (mph) to the north of M Street. This corridor serves as the major commuter route from the Southeast Freeway off-ramp onto M street, SE corridor as well as to the Nationals Stadium. The southbound traffic from the freeway is controlled by a traffic signal at the merge point with South Capitol Street. The northbound traffic weaves across several lanes to reach the freeway ramps. The primary land use to the east and west of South Capitol Street is commercial/office high density.

M STREET, SE

M Street, SE is a six lane divided arterial running east-west with a posted speed limit of 25 mph. The majority of the intersections along the corridor are signalized. M Street is a grade separated interchange at South Capitol Street. Parking is available via variable rate meters on the east side of South Capitol and M Streets. Parking is not permitted during baseball games. Part of the land use on M Street is high density commercial/office to the west of 4th Street, SE, and residential medium density to the east of 4th Street, SE. South of the M Street is predominantly federal office facilities.

L STREET, SE

L Street, SE is a two lane arterial running east-west. It operates two-way between New Jersey Avenue and 8th Street, SE and one-way traffic in the westbound direction between 8th Street and 9th Street. Parking is available via variable rate meters on both sides of L Street.

I STREET, SE

I Street, SE, a three lane collector, runs one-way westbound to the north of the Southeast Freeway from 8th Street, SE to 4th Street, SE. On-street/restricted parking is allowed. The land use to the north of I Street in the study area is residential medium density.

8[™] STREET, SE

8th Street, SE, is a two lane minor arterial running north-south. On-street parking is provided via variable rate meters. The land use on 8th Street is commercial/medium density with restaurants and other retail space for the most part. 8th Street is one of the highly travelled north-south corridors within the project limits.

3.2 TRAFFIC DATA

The Measures-of-Effectiveness (MOEs), which consist of delay, volume-capacity ratio, and Level-of-Service (LOS), were extracted from Synchro using the Highway Capacity Manual (HCM) Signals report. This report format follows the HCM procedures. **Table 3-2** presents the MOEs for Existing Conditions at signalized intersections. In general, overall operations at most signalized intersections are acceptable (LOS D or better), except at two locations: M Street SE and the

southbound off-ramp from South Capitol Street (AM peak hour), and westbound Virginia Avenue SE at 3rd Street SE/on-ramp to the Southeast Freeway (PM peak hour). At other intersections, individual approaches may operate at undesirable LOS, while the overall intersection LOS is acceptable.

Table 3-2. Existing Conditions MOEs - Signalized Intersections

		AM Peak Hour			PM Peak Hour		
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS	
South Capitol Street and I (Eye) Street SE (Left)	11.4	0.57	В	15.4	0.63	В	
South Capitol Street and I (Eye) Street SE (Right)	18.1	0.68	В	17.3	0.47	В	
Ramps from freeway at South Capitol Street SB	33.3	0.65	С	26.9	0.56	С	
South Capitol Street at M Street SE - SB Intersection	152.4	0.89	F	21.4	0.43	С	
South Capitol Street at M Street SE - NB Intersection	15.3	0.52	В	21.9	0.49	С	
M Street SE at 1 st Street SE	15.7	0.36	В	15.8	0.37	В	
M Street SE at New Jersey Avenue SE	13.4	0.24	В	12.1	0.32	В	
M Street SE at 3 rd Street SE	6.0	0.19	Α	9.9	0.24	Α	
M Street SE at 4 th Street SE	20.1	0.29	С	12.5	0.24	В	
M Street SE at 8 th Street SE	18.2	0.52	В	13.3	0.49	В	
M Street SE at 9 th Street SE	10.7	0.31	В	13.9	0.52	В	
M Street SE at 11 th Street SE	20.0	0.55	С	42.6	0.73	D	
Virginia Avenue SE EB at 5 th Street SE	34.8	0.10	С	37.4	0.21	D	
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	16.6	0.51	В	14.6	0.40	В	
Virginia Avenue SE EB at 7 th Street SE	6.0	0.25	Α	17.2	0.42	В	
Virginia Avenue SE EB at 8 th Street SE	34.7	0.29	С	42.5	0.33	D	
Virginia Avenue SE ramp at 8 th Street SE	12.4	0.30	В	12.7	0.41	В	
I (Eye) Street SE at 8 th Street SE	18.9	0.49	В	19.2	0.48	В	
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	7.6	0.37	Α	10.1	0.52	В	
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	6.9	0.44	Α	27.0	0.34	С	
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	29.1	0.45	С	17.4	0.39	В	
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	33.6	0.78	С	81.5	1.12	F	
G Street SE at 8 th Street SE	9.1	0.29	Α	11.4	0.38	В	
M Street SE at Isaac Hall Avenue SE	4.1	0.28	Α	23.2	0.52	С	

Delay is measured as average delay in seconds per vehicle. LOS is a qualitative measure of the intersection's operational performance and is based on average delay.¹

 $^{^{1}}$ The level of service (LOS) characterizes the operating conditions at the intersections in terms of delay. In general, LOS can be characterized as follows: A = free flow; B = reasonably free flow; C = stable flow; D = approaching unstable flow; E = unstable flow; F = forced or breakdown flow.

CONSTRUCTION PHASING, CLOSURES, AND DETOURS

4.1 SEQUENCE OF CONSTRUCTION

Generally, construction of the Virginia Avenue Tunnel requires complete closure of Virginia Avenue between 2nd Street, SE and 9th Street, SE to minimize the overall construction time. Broadly categorizing, construction would be performed in two phases, Phase 1 and Phase 2. Phase 1 includes construction of the track on the southside and Phase 2 includes the construction of the track on the northside.

4.1.1 SEQUENCE OF CONSTRUCTION – ALTERNATIVE 2 AND ALTERNATIVE 3

During Phase 1 of Alternatives 2 and 3, one lane of Virginia Avenue would be open from 5th Street, SE to 8th Street, SE, to accommodate the off-ramp traffic from Southeast Freeway. During Phase 2, Virginia Avenue would be completely closed between 2nd Street, SE and 9th Street, SE. The details of each phase are described below and preliminary Maintenance of Traffic (MOT) is depicted in **Figure A-1** and **Figure A-2**. Note that detailed MOT plans would be submitted separately.

PHASE 1

Phase 1 includes construction of the run-around track. Details of this phase including construction and maintenance of traffic are provided below:

- Construct temporary driveways and alleys to provide access to the properties on Virginia Avenue, SE.
- Construct construction access roads
- Complete utility relocations and temporarily support utilities in place.
- Provide erosion control measures and construct temporary drainage structures.
- Close Virginia Avenue from 2nd to 5th Streets, and from 8th to 9th Streets; traffic on these roads would divert to the parallel K and L Streets.
- Convert L Street to two-way operations between 8th and 9th Streets.
- Completely close the intersection of Virginia Avenue and 2nd Street, SE and construct a temporary pedestrian deck. This intersection would remain closed to vehicular traffic for the duration of the project.
- Construct temporary street decks at 11th Street, SE required for Phase 1 while maintaining one lane of traffic in each direction and pedestrian movement at all times. The schedule of this activity would depend on 11th Street Project. A temporary detour on the east side of 11th Street may be required to detour traffic during construction of temporary decks.

- Construct temporary decks at 3rd Street, SE required for Phase 1 while maintaining one lane of traffic in each direction. Construct an extended temporary deck to provide access into the loading dock for the building located at 200 I Street, SE. Construct a temporary deck to maintain north-south pedestrian access on the east side of the intersection. 3rd Street, SE would be completely closed for a short-term duration for the construction of the decks. A suggested detour is described in Section 5.2 of this report.
- Temporarily close the intersection of Virginia Avenue, SE and 5th Street, SE, and construct a vehicular and pedestrian deck. A suggested detour is described in Section 5.2 of this report.
- The off-ramp from the Southeast Freeway would be open to traffic. Reduce Virginia Avenue to one lane from the Southeast Freeway off-ramp to 8th Street. Modify the existing signal to accommodate the off-ramp traffic and the north-south traffic and pedestrian movement.
- Construct temporary decks at 8th Street, SE in phases while maintaining one lane of traffic at all times in each direction. Construct a temporary deck to maintain north-south pedestrian access on the west side of the intersection.
- Construct temporary decks at 4th Street, SE in phases while maintaining one southbound lane at all times. Construct a temporary deck to maintain pedestrian access on the east side of the intersection.
- Construct temporary decks at 7th Street, SE. 7th Street, SE would be completely closed for a short-term duration for the construction of the decks. A suggested detour is described in Section 5.2 of this report.
- The closures of the 8th and 9th Streets ramps depend on the 11th Street project schedule. Once these ramps are closed, the traffic would be diverted to the new outbound ramp at the intersection of M Street and 11th Street, SE.
- Install south SOE slurry wall, and excavate on the southside and construct tunnel precast wall.
- Install tunnel utilities, ballast, and track ties and rails.
- Test the track and divert the railroad traffic to the newly constructed southside track.

PHASE 2

Phase 2 is characterized by the major project elements that include demolition and reconstruction of the existing railroad. Details including construction and maintenance of traffic are provided below:

• Convert Virginia Avenue, SE on the north side of the Southeast Freeway to two-way operations between 6th Street and 8th Street. The new configuration would be one westbound lane and two eastbound lanes between 6th Street and 7th Street and one lane each direction between 7th Street and 8th Street. Modify/reconstruct signals at three intersections: Virginia Avenue and 6th Street, Virginia Avenue and 7th Street, and Virginia Avenue and 8th Street.

Divert the off-ramp traffic from the Southeast Freeway to this newly reconfigured Virginia Avenue on the north side of the freeway.

- Close Virginia Avenue, SE from 5th/6th Street to 8th Street on the south side of the Southeast Freeway.
- Construct temporary decks for 3rd, 4th, 5th, 7th, 8th, and 11th Streets, SE along the permanent track.
- Remove existing track.
- Install SOE supporting north existing tunnel wall.
- Excavate existing track foundation.
- Construct the northside tunnel invert, wall and roof.
- Install tunnel utilities, ballast, and track ties and rails.
- Test the track and open to railroad traffic.
- Remove temporary decks and prepare subgrade on Virginia Avenue.
- Install roadway utilites.
- Construct proposed roadway improvements on Virginia Avenue on the south side of the Southeast Freeway including drainage structures, pavement and sidewalk.
- Complete signal modifications and other landscape improvements.
- Restore previous operations for Virginia Avenue on the north side of Southeast Freeway.
- Open Virginia Avenue to traffic.

4.1.2 SEQUENCE OF CONSTRUCTION - ALTERNATIVE 4

In Alternative 4, construction would proceed in sections of approximately 400 feet. The construction sequence requires working on one segment of the tunnel at a time and then move to the next section, starting at the west end and working eastwards. Virginia Avenue would be completely closed between 2nd Street, SE and 9th Street, SE during both Phase 1 and Phase 2. The details of each phase are described below and the preliminary Maintenance of Traffic (MOT) is depicted in **Figure A-1**. Note that detailed MOT Plans would be submitted separately. Construction in Alternative 4 would begin at Area 1 (between South Capitol Street and 2nd Street, SE) and proceed towards Area 7 (between 8th Street, SE and 12th Street, SE)

PHASE 1

Phase 1 includes construction of the southside track. Details of this phase including construction and maintenance of traffic are provided below:

- Construct temporary driveways and alleys to provide access to the properties on Virginia Avenue, SE.
- Construct construction access roads

- Complete utility relocations and temporarily support utilities in place.
- Provide erosion control measures and construct temporary drainage structures.
- Close Virginia Avenue from 2nd to 9th Streets; traffic on these roads would divert to the parallel K and L Streets.
- Convert Virginia Avenue, SE on the north side of the Southeast Freeway to two-way operations between 6th Street and 8th Street. The new configuration would be one westbound lane and two eastbound lanes between 6th Street and 7th Street and one lane each direction between 7th Street and 8th Street. Modify/reconstruct signals at three intersections: Virginia Avenue and 6th Street, Virginia Avenue and 7th Street, and Virginia Avenue and 8th Street. Divert the off-ramp traffic from the Southeast Freeway to this newly reconfigured Virginia Avenue on the north side of the freeway.
- Convert L Street to two-way operations between 8th and 9th Streets.
- Completely close the intersection of Virginia Avenue and 2nd Street, SE and construct a temporary pedestrian deck. This intersection would remain closed to vehicular traffic for the duration of the project.
- Construct temporary street decks at 11th Street, SE while maintaining one lane of traffic in each direction and pedestrian movement at all times. The schedule of this activity would depend on 11th Street Project. A temporary detour on the east side of 11th Street may be required to detour traffic during construction of temporary decks.
- Construct temporary decks at 3rd Street, SE while maintaining one lane of traffic in each direction. Construct an extended temporary deck to provide access into the loading dock for the building located at 200 I Street, SE. Construct a temporary deck to maintain north-south pedestrian access on the east side of the intersection. 3rd Street, SE would be completely closed for a short-term duration for the construction of the decks. A suggested detour is described in Section 5.2 of this report.
- Temporarily close the intersection of Virginia Avenue, SE and 5th Street, SE, and construct a vehicular and pedestrian deck. A suggested detour is described in Section 5.2 of this report.
- Construct temporary decks at 8th Street, SE in phases while maintaining one lane of traffic at all times in each direction. Construct a temporary deck to maintain north-south pedestrian access on the west side of the intersection.
- Construct temporary decks at 4th Street, SE in phases while maintaining one southbound lane at all times. Construct a temporary deck to maintain pedestrian access on the east side of the intersection.
- Construct temporary decks at 7th Street, SE. 7th Street, SE would be completely closed for a short-term duration for the construction of the decks. A suggested detour is described in Section 5.2 of this report.

- The closures of the 8th and 9th Streets ramps depend on the 11th Street project schedule. Once these ramps are closed, the traffic would be diverted to the new outbound ramp at the intersection of M Street and 11th Street, SE.
- Install demolition shield support along the existing track to start demolition.
- Install south SOE slurry wall, and demolish existing tunnel roof and tunnel southern wall.
- Excavate on the southside and construct tunnel precast wall and roof.
- Install tunnel utilities, ballast, and track ties and rails.
- Test the track and divert the railroad traffic to the newly constructed southside track.

PHASE 2

Phase 2 is characterized by the major project elements that include demolition and reconstruction of the existing railroad. Details including construction and maintenance of traffic are provided below:

- Maintain the same traffic pattern as Phase 1.
- Remove existing track.
- Install SOE supporting north existing tunnel wall.
- Excavate existing track foundation.
- Construct the northside tunnel invert, wall and roof.
- Install tunnel utilities, ballast, and track ties and rails.
- Test the track and open to railroad traffic.
- Remove temporary decks and prepare subgrade on Virginia Avenue.
- Install roadway utilites.
- Construct proposed roadway improvements on Virginia Avenue on the south side of the Southeast Freeway including drainage structures, pavement and sidewalk.
- Complete signal modifications and other landscape improvements.
- Restore previous operations for Virginia Avenue on the north side of Southeast Freeway.
- Open Virginia Avenue to traffic.

4.2 ROAD ACCESS

ROADWAYS COMPLETELY CLOSED FOR AN EXTENDED PERIOD – LONG TERM CLOSURES

- Virginia Avenue, SE from 2nd Street, SE to 9th Street, SE (east/west movement);
- 2nd Street, SE at Virginia Avenue, SE.

ROADWAYS TEMPORARILY CLOSED - TEMPORARY OR WEEKEND CLOSURES

• 3rd Street, SE (north/ south movement).

- 5th Street, SE/6th Street, SE at Virginia Avenue, SE (north-south movement).
- 7th Street, SE (north/ south movement).

ROADWAYS MODIFIED

- In Phase 1, convert Virginia Avenue, SE eastbound to one lane from 5th Street, SE to 8th Street, SE;.
- For both phases, convert L Street, SE to two-way operations from 8th Street, SE to 9th Street, SE.
- In Phase 2, convert Virginia Avenue, SE (north side of the Southeast Freeway) from 6th Street, SE to 8th Street, SE to two-way operations.
- In Phase 2, convert Southeast Freeway exit ramp to Left Only operations at 5th Street, SE.

4.3 TRAFFIC DETOURS

The following routes would be closed to traffic during construction:

- Virginia Avenue, SE (Long term detour, see **Figure A-4**).
- Intersection of 2nd Street, SE and Virginia Avenue, SE (no detour required).
- 3rd Street, SE (Short term detour, see **Figure A-5**).
- 5th Street, SE (Short term detour, see **Figure A-6**).
- 7th Street, SE (Short term detour, see **Figure A-7**).

A detailed description of the suggested detour routes are given below.

4.3.1 SUGGESTED LONG-TERM DETOUR ROUTES

This project would sign detours, as described below. Although detours are signed in one manner, driver familiarity with the area may elect to find their own paths.

VIRGINIA AVENUE, SE

The closure of Virginia Avenue, SE would result in detouring Southeast Freeway off-ramp traffic. The ramp traffic from the Southeast Freeway would make a left at the bottom of the ramp and detour via Virginia Avenue on the north side of the freeway. Virginia Avenue would be made two-way between 6th Street, SE and 8th Street, SE to detour the ramp traffic. Traffic would turn right onto Virginia Avenue, SE on the north side of the freeway and further turn onto 7th Street or 8th Street.

The eastbound traffic on Virginia Avenue, SE in general would be detoured onto G Street, SE and L Street, SE.

4.3.2 SUGGESTED SHORT-TERM DETOUR ROUTES

Temporary decking would be constructed to maintain north-south traffic. Of these roadways, most are sufficiently wide enough to maintain existing traffic, although shifting them. Some are

not wide enough to maintain traffic during the construction of the temporary decking, and these roadways would require short term detours as the roadways are closed for constructing the temporary decking.

3RD STREET, SE

The intersection of 3rd Street, SE and Virginia Avenue, SE would be closed for the construction of an extended temporary deck which would be constructed to maintain access to the loading dock for the building located at 200 I Street, SE. Traffic approaching from the north would be detoured onto G Street, SE. Traffic would turn right onto 4th Street, SE and subsequently turn left onto I Street, SE connect back to the intersection of 3th Street, SE and I Street, SE.

Traffic approaching from the south would be detoured onto L Street, SE to 5th Street, SE. Traffic would turn left onto 5th Street, SE, cross the Southeast Freeway, and subsequently turn left onto Virginia Avenue, SE to connect back to the intersection of 3rd Street, SE and Virginia Avenue, SE.

5TH STREET, SE

The intersection of 5th Street, SE and Virginia Avenue would be closed to traffic for the entire duration of construction. Traffic approaching from south of the intersection would be detoured onto L Street, SE to 7th Street, SE. Traffic would turn left onto 7th Street, SE and subsequently turn left onto Virginia Avenue, SE to connect back to the intersection of 6th Street, SE and Virginia Avenue, SE.

7TH STREET, SE

The intersection of 7th Street, SE and Virginia Avenue, SE would be temporarily closed for the construction of the temporary deck. Traffic approaching from the south would be detoured onto L Street, SE to 8th Street, SE. Traffic would turn left onto 8th Street, SE and subsequently turn left onto I Street, SE to connect back to the intersection of 7th Street, SE and I Street, SE.

Traffic approaching from the north would be detoured onto I Street, SE to 8th Street, SE. Traffic would turn right onto 8th Street, SE and subsequently turn right onto L Street, SE to connect back to the intersection of 7th Street, SE and L Street, SE.

4.4 TRAFFIC SIGNALS

The following intersections would need signal modifications during construction to accommodate long term detours:

- Virginia Avenue, SE and 5th Street, SE.
- Virginia Avenue, SE and 6th Street, SE.
- Virginia Avenue, SE (north of freeway) and 7th Street.
- Virginia Avenue, SE (south of freeway) and 7th Street.
- Virginia Avenue, SE (north of freeway and 8th Street.
- Virginia Avenue, SE (south of freeway and 8th Street.

PRELIMINARY WORK ZONE IMPACT ASSESSMENT

Construction of the Virginia Avenue Tunnel would have some impact on the local community and the traveling public. Efforts to mitigate these impacts include using traffic management strategies, providing support for public outreach, and enforcement. These strategies would play a significant role in helping manage the construction-related traffic impacts and would attempt to actively manage construction while maintaining work zone safety and mobility. In addition, CSXT is committed to coordinating closely with DDOT and the community to monitor the safety of those using the roads and walkways throughout the project area and to immediately address and mitigate any incidents that may arise. The construction phasing and maintenance of traffic, as discussed in chapter 4, pose minimal impacts to the existing network and the roadways within the project limits. Some portion of the traffic normally using the facilities may use alternate routes when work zones are established. Overall, vehicular and pedestrian access would be maintained to all properties, parks, places of worship, schools, and neighboring landmarks. The places of interest in the project vicinity are shown in Figure A-8.

5.1 ACCESS TO PROPERTIES

Vehicular and pedestrian access to properties on Virginia Avenue would be maintained at all times. Some of the driveways with existing access onto Virginia Avenue, SE would be temporarily relocated to other adjoining streets. Temporary access to properties is shown in **Table 5-1**.

Table 5-1. Property Access

ACCESS TYPE	EXISTING	TEMPORARY				
Owner: District of Columbia, DC Square No: 766, 200 I Street, SE – Location: Between 2 nd Street, SE and 3 rd Street, SE						
Loading Dock (Trash Access)	On Virginia Avenue SE	Maintained by constructing a temporary deck				
Vehicle Access	3 rd Street, SE	Existing access maintained in place				
Verlicie Access	I Street, SE (Entrance to Garage)	Existing access maintained in place				
Pedestrian Access	(Under Construction)	Existing access maintained in place				
Owner: Capitol Quarters (Various Owners), DC Square No: 797 – Location: Between 3 rd Street, SE and 4 th Street, SE						
Vehicle Access	Driveway #1 onto Virginia Avenue, SE	Entrance to be relocated on to 3 rd Street, SE				
(Fire and Trash Access)	Driveway #2 onto Virginia Avenue, SE	Entrance to be relocated on to 4 th Street, SE				
Pedestrian Access	Sidewalk connections to all homes with access from Virginia Avenue, SE, 3 rd Street, SE, I Street, SE, and 4 th Street, SE	All pedestrian access would be maintained in place. Temporary sidewalk connections would be constructed along the relocated driveways				

ACCESS TYPE	EXISTING	TEMPORARY		
	rch and Capitol Quarters (Various O			
DC Square No: 824	- Location: Between 4 th Street, SE a	and 5 th Street, SE		
Vehicle Access	Driveway #1 onto I Street, SE	Existing access maintained in place		
(Fire and Trash Access)	Driveway #2 onto K Street, SE	Existing access maintained in place		
Pedestrian Access	Sidewalk connections to all homes with access from I Street, SE, 4 th Street SE, K Street, SE, and 5 th Street, SE	All pedestrian access would be maintained in place		
Owner: Capitol Ser DC Square No: 880 Virginia Avenue, S), Address: 900 5 th Street, SE – Locat	ion: On 5 th Street, SE between K Street, SE and		
Vehicle Access (Fire and Trash Access)	Driveway #1 onto Virginia Avenue, SE	This access would be closed for the entire duration of construction. A temporary path would be provided on the north side of the building to maintain access to emergency vehicles. The path would connect to 5 th Street, SE		
	Driveway #2 onto K Street, SE	Existing access maintained in place		
Pedestrian Access	Sidewalk connections from K Street, SE, and 5 th Street, SE			
	al Community Church (UNDER DEM 5 – Location: Between 7 th Street, SE a			
Vehicle Access	3 Driveways onto Virginia Avenue, SE	All three driveways would be closed for the entire duration of construction		
(Fire and Trash	Driveway onto 7 th Street, SE	Existing access maintained in place		
Access)	Driveway onto L Street, SE	Existing access maintained in place		
Pedestrian Access	Sidewalk connections with access from 7 th Street, 8 th Street, and L Street	All pedestrian access would be maintained in place		
Empty Parking Lot	, DC Square No: 929 – Location: Bet	ween 8th Street, SE and 9th Street, SE		
Vehicle Access (Fire and Trash Access)	2 Driveways onto Virginia Avenue, SE	These 2 driveways would be relocated to L Street, SE		
808-810 L Street, S	E, DC Square No: 929 – Location: Be	etween 8th Street, SE and 9th Street, SE		
Vehicle Access	No existing driveways	N/A		
Pedestrian Access	Sidewalk connections with access from Virginia Avenue, SE, and L Street, SE	Pedestrian access from Virginia Avenue, SE would be closed during construction. Access from L Street would be maintained		
DOG-MA, DC Squa	re No: 929 – Location: Between 8th	Street, SE and 9th Street, SE		
Vehicle Access (Fire and Trash Access)	Driveway onto Virginia Avenue, SE	Entrance would be relocated on to 9 th Street, SE		
Pedestrian Access	Sidewalk connections with access from Virginia Avenue, SE	Pedestrian access would be relocated along with driveway on to 9 th Street, SE		

5.2 POLICE AND FIRE EMERGENCY

The locations of the nearest Metropolitan Police and Emergency response units are shown in **Figure A-9.** Emergency vehicles would be impacted slightly by the detours put into place by

this project and the adjacent 11th Street Bridge Project. Detours would affect emergency vehicles routing by no more than a few blocks, depending on actual routes selected by the responders. To maintain fire and rescue access to the various parcels, temporary access roads would be provided, and are currently proposed as follows:

- The property bounded by Virginia Avenue SE, 3rd, 4th and I Streets, SE would have temporary access constructed off of 3rd and 4th Streets SE to connect to the existing fire lane in the middle of the property.
- The Cappers Senior property, bounded by Virginia Avenue, SE, 5th and K Streets, SE and the existing fire lane on the east side of the property adjacent to the Marine Barracks' athletic field, would be impacted with the closure of Virginia Avenue, SE to the north. A temporary access road would be constructed along the north face of the building to connect to the existing fire lane to 5th Street, SE.

Other properties in the area are not anticipated to be impacted to the degree that additional temporary access roadways are needed.

5.3 PEDESTRIAN/BICYCLE ROUTES

There are pedestrian flows between the various bus stops and activity centers within the area. The area is well served with marked pedestrian crosswalks at intersections. Four roadways have on-street bike lanes and a few others are designated as bike routes. Currently there are four Capital Bikeshare stations within the area, and these stations are linked with others in the area. **Figure A-10** presents the on-street bike lanes, bike paths, and Capital Bikeshare stations, as well as bus stops located in the project area.

On all streets crossing Virginia Avenue, temporary decks would be constructed to accommodate north-south pedestrian and bicyclist movement. The existing sidewalk on the south side of Virginia Avenue, SE would be closed from 2nd Street, SE to 9th Street, SE during construction. There are alternative parallel sidewalks on I, K, and L Streets which would be used temporarily for east-west pedestrian/bike movement.

Safe, accessible, and convenient alternative access would be maintained to bus stops, cross-walks, sidewalks, and other origins and destinations when sidewalks and other walkways are closed during construction. Where necessary, a physical separation like concrete barriers and fencing would be provided between the construction zone and sidewalks to provide a safe environment for pedestrians and bicyclists. Adequate temporary signage and markings would be in place to control movement and if necessary, flaggers would be deployed at designated pedestrian paths to control construction vehicles.

5.4 PUBLIC TRANSIT

Figure A-11 shows the bus routes operating in the project area that have stops within or immediately adjacent to the project. WMATA bus routes in the vicinity include:

• Routes P1, P2 and P6 operate along M Street, SE during weekdays with 20 to 30 minute headways.

- Routes 90, 92, and 93 (U Street-Garfield Line) operate along 8th Street, SE and M Street, SE during weekdays and weekends. The headways range from 8 minutes to 20 minutes during peak hours.
- Routes V7, V8, and V9 (Minnesota Avenue M Street Line) operate along M Street, SE during weekdays and weekends. The headways vary between 8 and 15 minutes.
- Routes A42, A46, and A48 operate along M Street, SE during weekdays and weekend as an after-hours service when Metrorail is not operating. These routes link Archives and L'Enfant Plaza Metrorail Stations to the Anacostia area of DC.
- Route A9 operates along South Capitol Street and M Street, SW. It provides rush hour service, with varying headways between 10 and 20 minutes, from southern Anacostia to L'Enfant Metrorail Station,

In addition to WMATA, the DC Circulator operates two routes within the study area:

- Union Station Navy Yard: This route links Union Station with the Navy Yard Metrorail Station. Buses travel down 8th Street, SE to M Street, SE, to 1st Street SE, and then to New Jersey Avenue, SE. It stops at the Navy Yard Metrorail Station, where it then returns to the Union Station via M Street, SE and 8th Street, SE. Headways are approximately 10 minutes.
- Potomac Avenue Skyland: This route links Potomac Avenue Metrorail Station to the Skyland area in Anacostia. It travels along M Street, SE and 8th Street, SE within the study area. Headways are approximately 10 minutes.

Other operators also run commuter bus services in the area, such as OmniRide, which links Prince William County to DC, including the Navy Yard. In addition to the bus services as described above, the Navy Yard Metrorail Station, served by the Green Line, is the only station that is located in the project vicinity. Service during the peak periods averages every 6 minutes, while in the off-peak, service averages every 12 minutes. Capitol South (First/C Streets, SE) and Eastern Market (Pennsylvania Avenue/7th Street, SE) stations are just to the north of the study area, and are served by both the Orange and Blue Lines.

As no WMATA buses travel on the roadways that will be closed for the construction of the temporary decking, there would be no impacts to transit operations.

5.5 ON-STREET PARKING

On-street parking restrictions vary within the study area. In general, parking is restricted to two hours, unless allowed by residential permit. Some roadways also include the prohibition of on-street parking during rush hours since the parking lane is used as a travel lane during rush hours. On several blocks, no signage exists to indicate whether parking is prohibited or if there were restrictions on time allowed for parking. **Figure A-12** shows the impact on parking during construction.

In Phase 1 of construction, approximately 57 parking spots would be unavailable to the general public. In Phase 2 of construction, an additional 48 spots would be unavailable. Measures would be taken to provide temporary parking during construction. Several private spaces as

depicted in Figure A-12, have been identified which could be used as temporary parking locations to offset lost parking spaces.

5.6 SCHOOLS

Construction activity would have minimal impact on the nearby schools and school transportation facilities, limited only to those located in the immediate work zone area. The following are the schools in the project vicinity (locations shown on **Figure A-8**):

- Eagle Academy Public Charter School.
- Eagle Academy New Jersey Avenue Campus.
- Capitol Hill Day School.
- Brent Elementary School.
- Tyler Elementary School.

5.7 IMPACT OF THIS PROJECT ON SPECIAL EVENTS

FRIDAY EVENING PARADES, MARINE BARRACKS, 8th & I STREETS, SE, WASHINGTON, D.C.

The Evening Parade, a concert by the U.S. Marine Band, Silent Drill Team & Bugle Corps, is held Friday evening (8:00 p.m.) during the summer (May through August) at the Marine Barracks located at 8th & I Streets, SE, Washington, D.C. 20390-5000. Guests can park at Maritime Plaza, where a free shuttle service is provided to and from the Barracks. The temporary decking on 7th and 8th Streets SE would not be constructed at the same time, so 8th Street SE would be fully operational when 7th Street SE is closed for that temporary decking. When 8th Street SE is reduced in lane-width for construction of the temporary decking, 7th Street SE would be open. Slight increases in travel time may result to the Parade's guests. Location of the Maritime Plaza is shown on **Figure A-8**.

NATIONALS PARK

The Nationals Park stadium is located on South Capitol Street, SE between N Street and Potomac Avenue, SE. South Capitol Street is one of the access corridors to the Nationals Park. Three parking lots are available to the north of M Street, SE with approximately 800 parking spaces total. Other parking lots with approximately 150 spaces are located to the west of 3rd Street, SE. Shuttle routes are provided for the pre- and post-game activities for the Nationals.

Short term closures would occur during the offseason, so no Park patrons would be impacted, and the temporary decking would provide full access for all modes of north-south traffic, except vehicular traffic on 5th Street, SE at Virginia Avenue. As the construction progresses, the Construction Team would provide updated information of the construction activities, so that the Nationals Park executives and others can provide Park patrons with appropriate information.

5.8 IMPACT ON UTILITIES

Clark/Parsons would coordinate meetings with the DDOT and utility organizations during the project planning phase to mitigate any potential impacts and conflicts. Utilities which are iden-

tified as conflicting with proposed construction would be relocated by the utility companies. The standard twenty-one (21) approved Traffic Control Plan (TCP) typicals developed by DDOT would be used primarily for utility excavation.

5.9 CONSTRUCTION STAGING AREAS/HAUL ROUTES

The project is divided into seven major areas as shown in Figure A-13

Area 1 – Between South Capitol Street and 2nd Street, SE.

Area 2 – Between 2nd Street, SE and 3rd Street, SE.

Area 3 – Between 3rd Street, SE and 4th Street, SE.

Area 4 – Between 4th Street, SE and 5th Street, SE.

Area 5 – Between 5th Street, SE and 7th Street, SE.

Area 6 – Between 7th Street, SE and 8th Street, SE.

Area 7 - Between 8th Street, SE and 12th Street, SE.

There would be three main staging areas which would be used during the entire construction duration:

- One on the west end between South Capitol Street and New Jersey Avenue and the
- Second one at the east end beyond 12th Street, SE.
- The area between 5th Street, SE and 7th Street, SE would be used as a temporary staging area mainly for routine construction activities.

Figure A-14 depicts the anticipated truck routes for access in and out of these staging areas.

5.10 CONSTRUCTION EMPLOYEE PARKING PLAN

Error! Reference source not found. shows the west staging area (New Jersey yard) layout. It is anticipated that during peak construction activity, a maximum of 200 craft people would be active on the project site. In addition to the field personnel, up to 35 supervisory personnel would be present on site.

Based on the preliminary site utilization plan for the West Staging Area (New Jersey Yard), a minimum of 90 parking spaces would be available within the staging area limits.

Considering the availability of public transportation (Metro train and bus) in the close proximity of the project site, it is anticipated a large percentage of the field personnel will not use their private vehicles for commenting to the site. The following measures will be in place to minimize the construction parking needs:

- Field employees will be encouraged to use public transportation
- Parking on the job site will be by permit only
- Onsite parking permits will be issued with the priority given to the carpoolers

• Employees will be transported by vans or small buses from the designated parking area to their work areas.

5.11 SNOW EMERGENCY

Error! Reference source not found. shows the snow emergency routes in the project vicinity. This project would not have any impact on the snow emergency routes. All properties would have access to these routes at all times.

TRAFFIC OPERATIONAL ANALYSIS

The following gives a summary of traffic operations during construction and after the final proposed improvements. A separate comprehensive Traffic Operation Analysis report is prepared for this project. Refer to that document for other analysis details.

6.1 TRAFFIC ANALYSIS DURING CONSTRUCTION

The traffic operational analysis indicates that the proposed closure of Virginia Avenue in the three construction stages would not adversely impact traffic operations, provided that the signal timing plans are modified for key intersections in each phase. The short term detours would have some impact to traffic as 3rd and 7th Streets, SE would be closed temporarily to allow for construction of the temporary decking. These roadways would not be closed at the same time. Other temporary decking at 4th, 8th, 9th, and 11th Streets would be constructed to maintain at least one-lane in each direction. Nighttime closures may be possible, but as traffic volumes are much lower in the nighttime, the impacts are negligible. The north-south routes would be maintained during the two long term phases, except for the northbound movement of 5th Street, SE onto 6th Street, SE. The eastbound off-ramp would be maintained. Concurrent to this project, the 11th Street Bridge project would permanently close the 9th Street, SE ramp, and close the existing 8th Street, SE ramp for as long as a year as a new ramp is constructed. The analysis for this project considers those ramp closures.

6.1.1 PHASE 1A

This phase, which closes Virginia Avenue SE from 2nd to 5th Streets SE, and from 8th to 9th Streets SE, would reduce the number of travel lanes on Virginia Avenue SE to two lanes, but no significant traffic impacts were identified. Traffic using Virginia Avenue SE to the west of 5th Street SE is diverted to K or L Streets SE. Note that the 11th Street Bridge project closes the 8th Street SE ramp (Ramp E-2) for reconstruction, and permanently closes the 9th Street SE ramp. Those actions divert traffic to the 8th and M Streets SE intersection. It is recommended that signal timing plans be modified to improve operations at impacted intersections. This is applicable to Alternatives 2 and 3.

6.1.2 PHASE 1B

For this phase, the 11th Street Bridge project would reopen the 8th Street SE ramp (Ramp E-2). Slight changes in operations would occur along 8th and M Streets SE. It is recommended that signal timing plans be modified to improve operations at impacted intersections. This is applicable to Alternatives 2 and 3.

6.1.3 Phase 2

Virginia Avenue SE on the south side of the Southeast Freeway would be closed during this stage, and all traffic from the freeway ramp would be diverted to turn left at the end of the ramp, where it would then pass under the freeway to the intersection of Virginia Avenue SE/6th Street SE (north side of the freeway). Virginia Avenue SE (north side of the freeway) would be converted to two-way operations from 6th to 8th Streets SE. Vehicles would then be able to turn right at 7th or 8th Streets SE to reach their destinations as before. Signal timing plans modifications would be needed at the three Virginia Avenue SE intersections to the north of the freeway to accommodate the two-way operations. This is applicable to Alternatives 2, 3, and 4.

6.2 ULTIMATE STATE

The traffic analysis shows that the number of travel lanes can be reduced on Virginia Avenue SE. Both 2015 and 2040 conditions were assessed. This benefits the study area as new parking spaces could be constructed and/or there could be an increase in green space. As the intersections are reconfigured, new signal timing plans should be implemented. The recommended configuration for Virginia Avenue SE:

- The intersections of Virginia Avenue SE at 5th Street SE and off-ramp/6th Street SE are combined into a single intersection (3-phase signal). From a visual appearance, this would look similar to the configuration of southbound South Capitol Street, ramp from M Street SE and N Street SE. The off-ramp retains its through-only lane and a shared through-left lane configuration.
- The existing one-way operation of Virginia Avenue SE from 8th to 9th Streets SE would be converted to two-way operations. The number of lanes on Virginia Avenue SE could be reduced:
 - o For the short-term, the number of lanes needed from 4th to 5th Street SE is one, but eventually, a left turn lane is needed at the intersection to accommodate the long term growth in the area. Therefore it is recommended to construct the left turn lane, but stripe it out until needed.
 - o Reduce the number of lanes on Virginia Avenue SE to three from the off-ramp to 8th Street SE. In the interim years, the section from the off-ramp to 7th Street SE needs two lanes; during this period, the third lane could be a temporary parking lane, with the long term intention of becoming a travel lane during the peak periods.
- Improvements described above would benefit pedestrians and cyclists as facilities are improved and crossing distances across Virginia Avenue SE are shortened.

WORK ZONE IMPACT MANAGEMENT STRATEGIES

The purpose of work zone impact management strategies is to minimize traffic delays, improve safety for both workers and the traveling public, and maintain access for local businesses and residents.

- Temporary Traffic Control Strategies
- Public Communication Strategies
- Transportation Operations Strategies

These strategies are discussed in more detail below.

7.1 TEMPORARY TRAFFIC CONTROL STRATEGIES (TTC)

Temporary traffic control strategies combine strategies relating to temporary traffic control and project coordination to accommodate road users within the work zone or the adjoining corridor in an efficient and safe manner. The traffic control strategies shall also be used to provide adequate access to the roadway for the required construction, maintenance, or utility work and to provide safety for the workers. The following temporary traffic control strategies would be used for this project:

- Traffic Control Strategies.
 - Construction phasing/staging.
 - Lane shifts.
- Temporary Traffic Control Devices.
 - Temporary pavement markings.
 - Temporary signs.
 - Arrow panels.
 - Channelizing devices.
- Project Coordination.
 - Coordination with other projects.
 - Overall stakeholder coordination.

7.2 PUBLIC INFORMATION AND OUTREACH (PIO)

A proactive communications and outreach plan would be deployed to support the traffic management program for this project with the following goals and objectives:

- Increase awareness of local and long-distance travelers about traffic changes and impacts associated with the Project.
- Join the Public Information and Outreach Campaign with the DDOT Statewide Campaign to keep the traveling public aware of construction work zones and traffic impacts throughout the state.

The following strategies would be followed to achieve the goals and objectives of the Public Communications Plan:

- Providing advance notice for each phase of construction in media and via Portable Communication Message Signs (PCMS) when the traffic pattern changes.
- Providing information to the public concerning Transportation Operations Strategies listed below.
- Developing project web site and provide email alerts for each phase.
- Providing newsletters to local communities with updates of traffic flow changes and upcoming phases of construction.
- Providing a project hotline number for updates and revisions to traffic flow changes during construction.

7.3 TRANSPORTATION OPERATIONS (TO)

The Clark/Parsons team would develop Transportation Operations Strategies to manage work zone traffic operations including monitoring traffic conditions and making adjustments to traffic operations based on changing conditions. The goal of these strategies is to improve detection, verification, and response and clearance of crashes and other incidents in the work zone along the project corridor. This includes adequate enforcement of traffic regulations in the work zone. The following strategies would be used for the project:

- Coordinate with major stakeholders and employers in the vicinity of the project to identify possible shuttle services to reduce traffic.
- Adjust signal timings at intersections identified in the detour plan.
- Request police presence during critical times such as lane shifts.

TMP IMPLEMENTATION AND MONITORING

Implemented transportation management strategies would be monitored for the construction of Virginia Avenue Tunnel Construction Project. Monitoring the performance of the TMP strategies (temporary traffic control, public communication and traffic operations) during the construction phase is important as it is vital to establish whether the predicted impacts closely resemble the actual conditions in the field and whether the strategies are effective in managing the impacts. The following strategies would be used on a daily basis for oversight and evaluation purposes:

- Work activities within the construction work zone would not commence until the approved traffic control devices are in place in accordance with the approved traffic control plan.
- When traffic must be maintained through all or part of a construction work zone, an inspector trained in traffic control would be assigned to monitor the approved traffic control plan and recommend changes.
- Complete records of the management of the TCP would be maintained that include: when specific traffic control devices are placed and removed; when contract work activities were completed; inspection time, date and findings.
- Traffic crashes and injuries associated with other modes of transportation that occur within a construction work zone would be documented and reported to the Construction Engineer and the District Safety Coordinator.

9

CONTINGENCY PLAN

A contingency plan would be prepared that would address incident management during construction. The plan would identify ways to minimize traffic impacts when unexpected events occur in the work zone (e.g., crashes, unforeseen traffic demand, inclement weather, etc.). The following would be maintained for this project:

- A decision matrix with lines of communication and authority for use when unexpected events occur in the work zone.
- Names, phone numbers, and pager numbers of TMP managers, Resident Engineers, maintenance supervisors, law enforcement commanders, local agency representatives, etc., would be accessible to the personnel working on site.
- A detailed contingency plan would be prepared for reopening closures to traffic.

AFIGURES

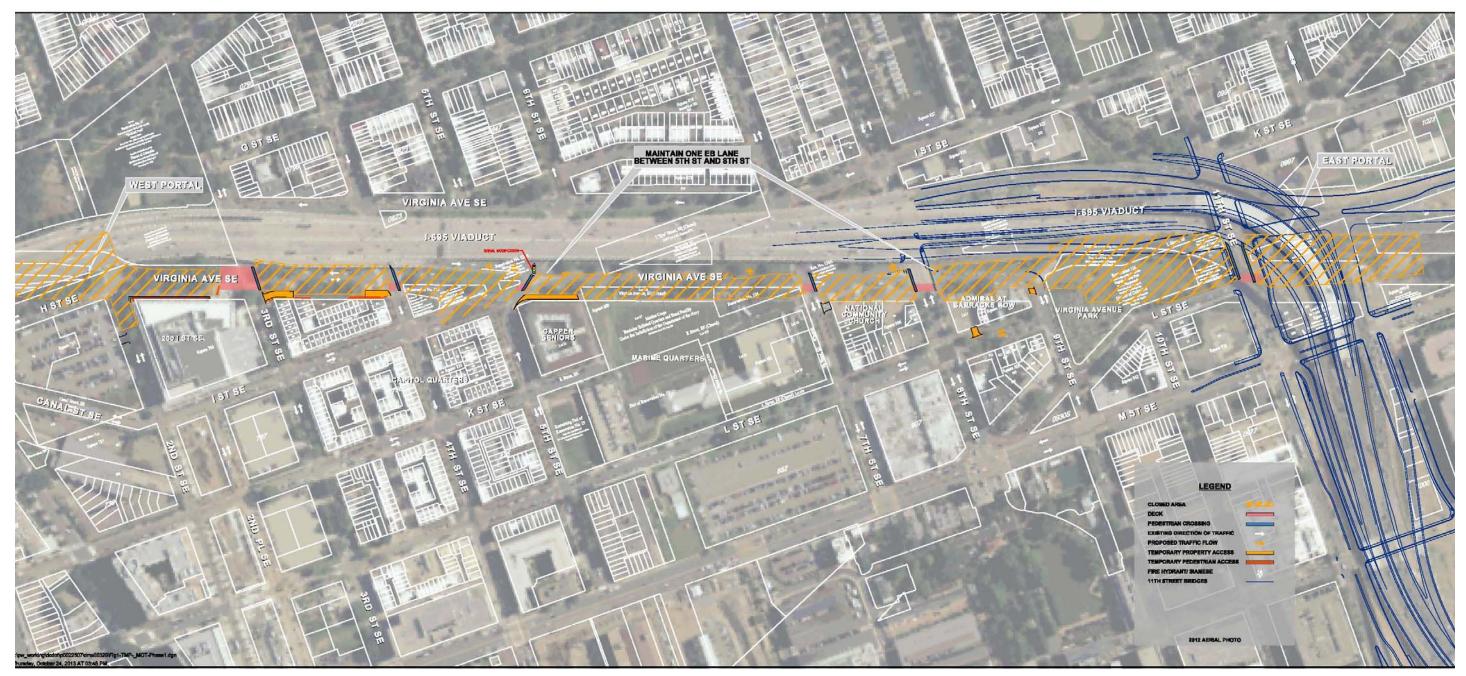


Figure A-1. Maintenance of Traffic: Alternatives 2 and 3 - Phase 1

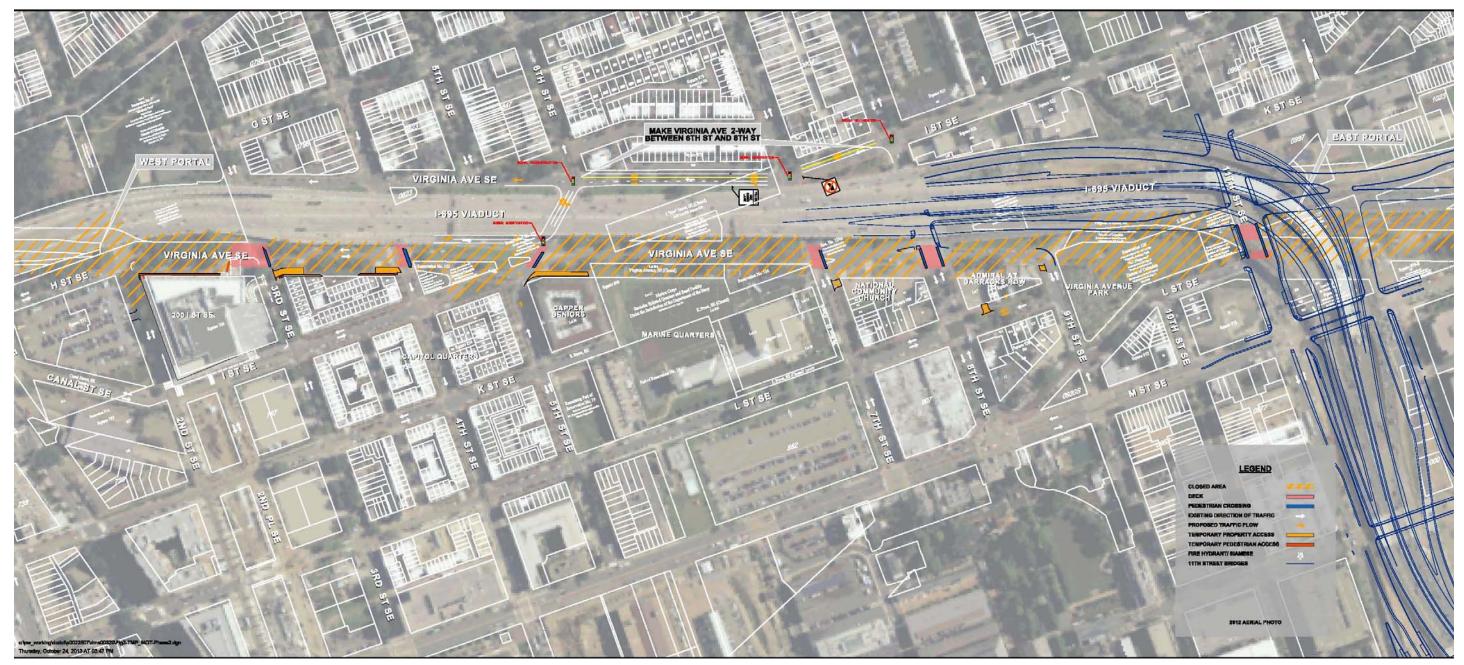


Figure A-2. Maintenance of Traffic: Alternative 2 and 3 – Phase 2

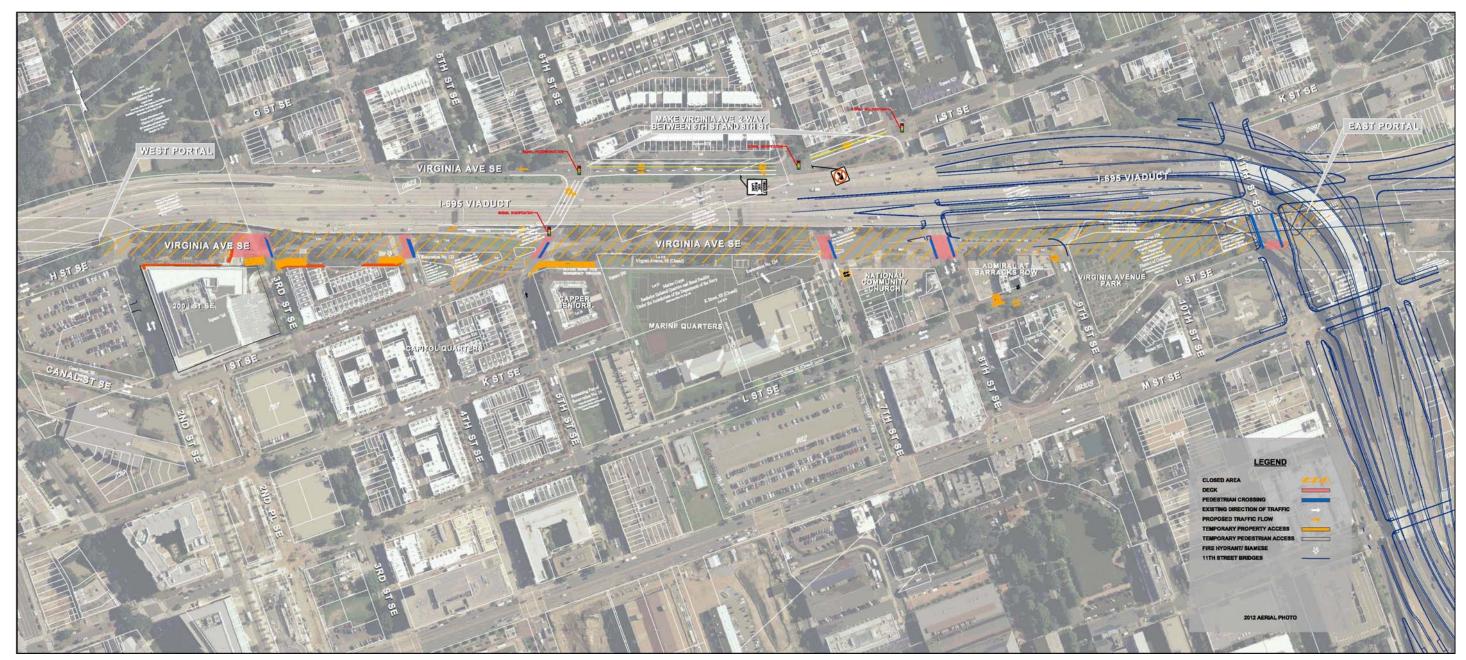


Figure A-3. Maintenance of Traffic: Alternative 4

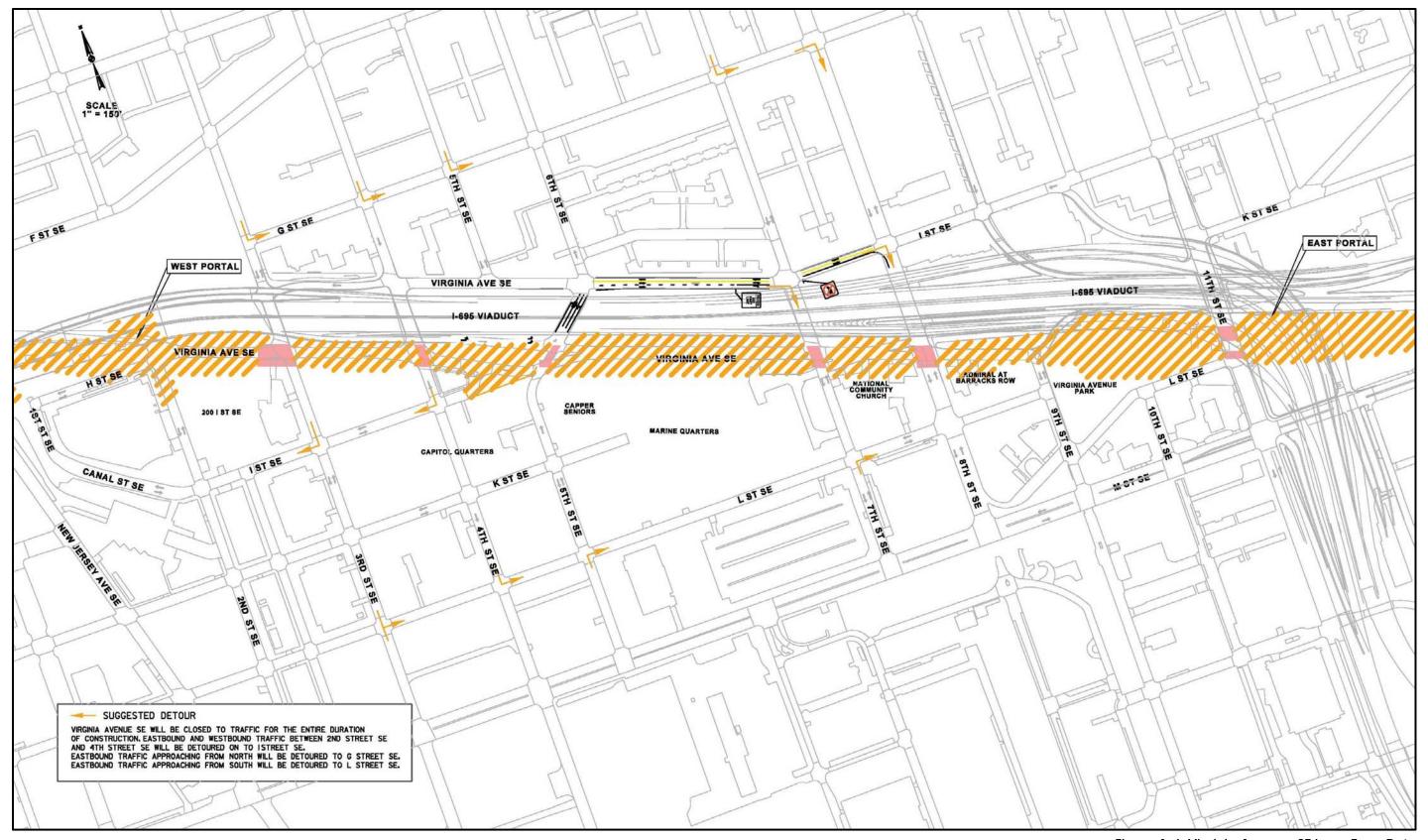


Figure A-4. Virginia Avenue, SE Long-Term Detour

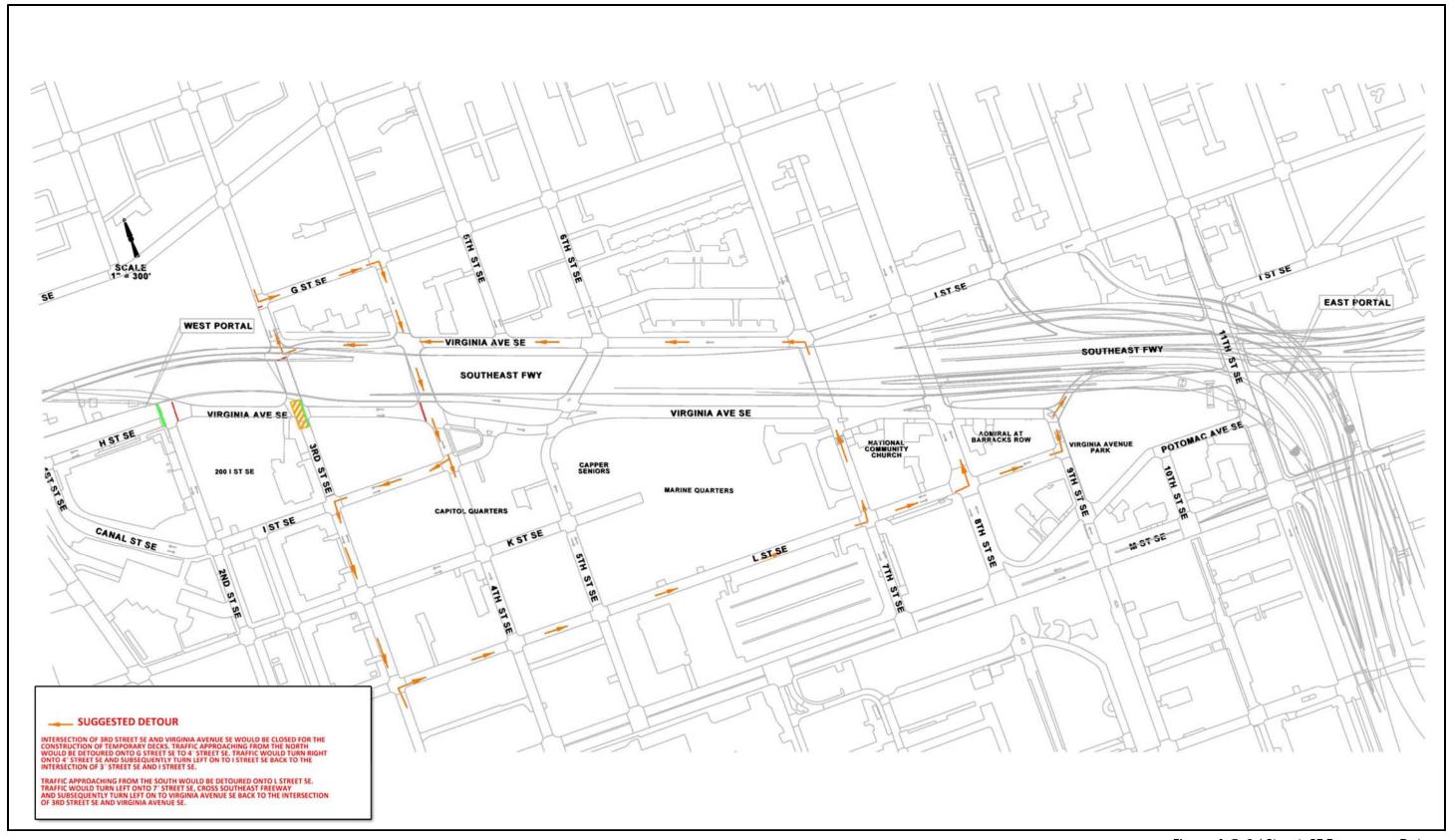


Figure A-5. 3rd Street, SE Temporary Detour

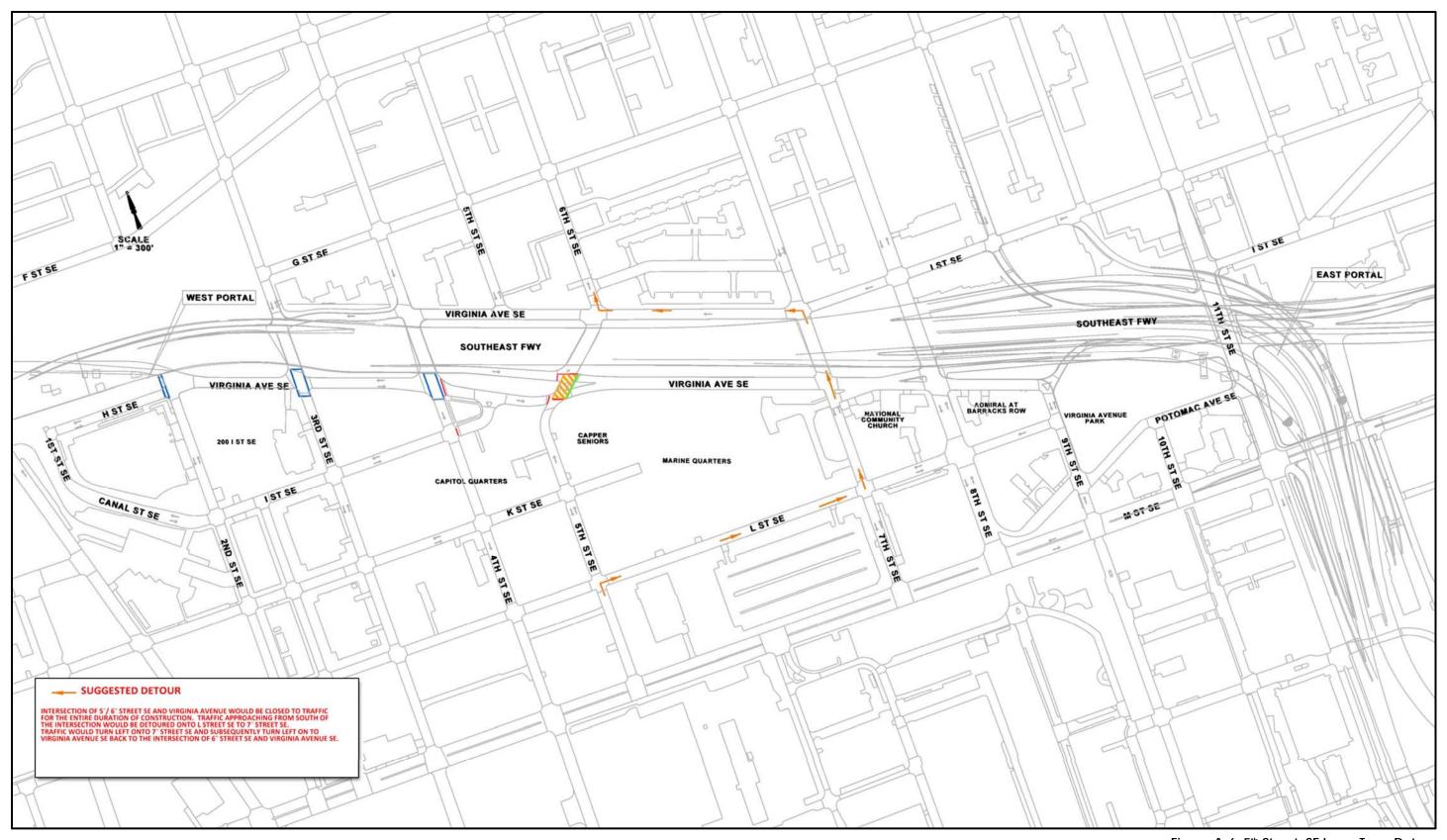


Figure A-6. 5th Street, SE Long-Term Detour

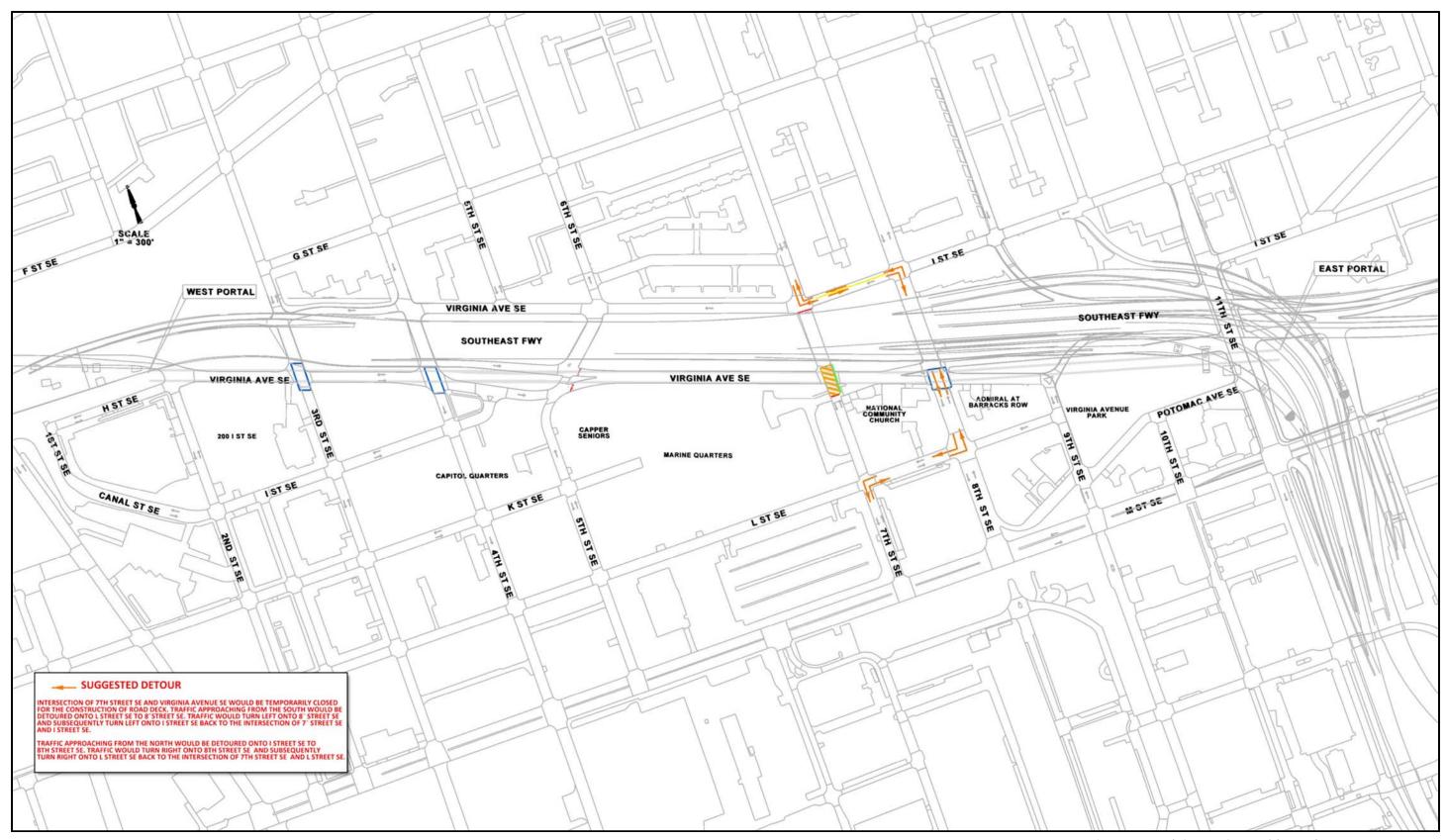


Figure A-7. 7th Street, SE Northbound Temporary Detour

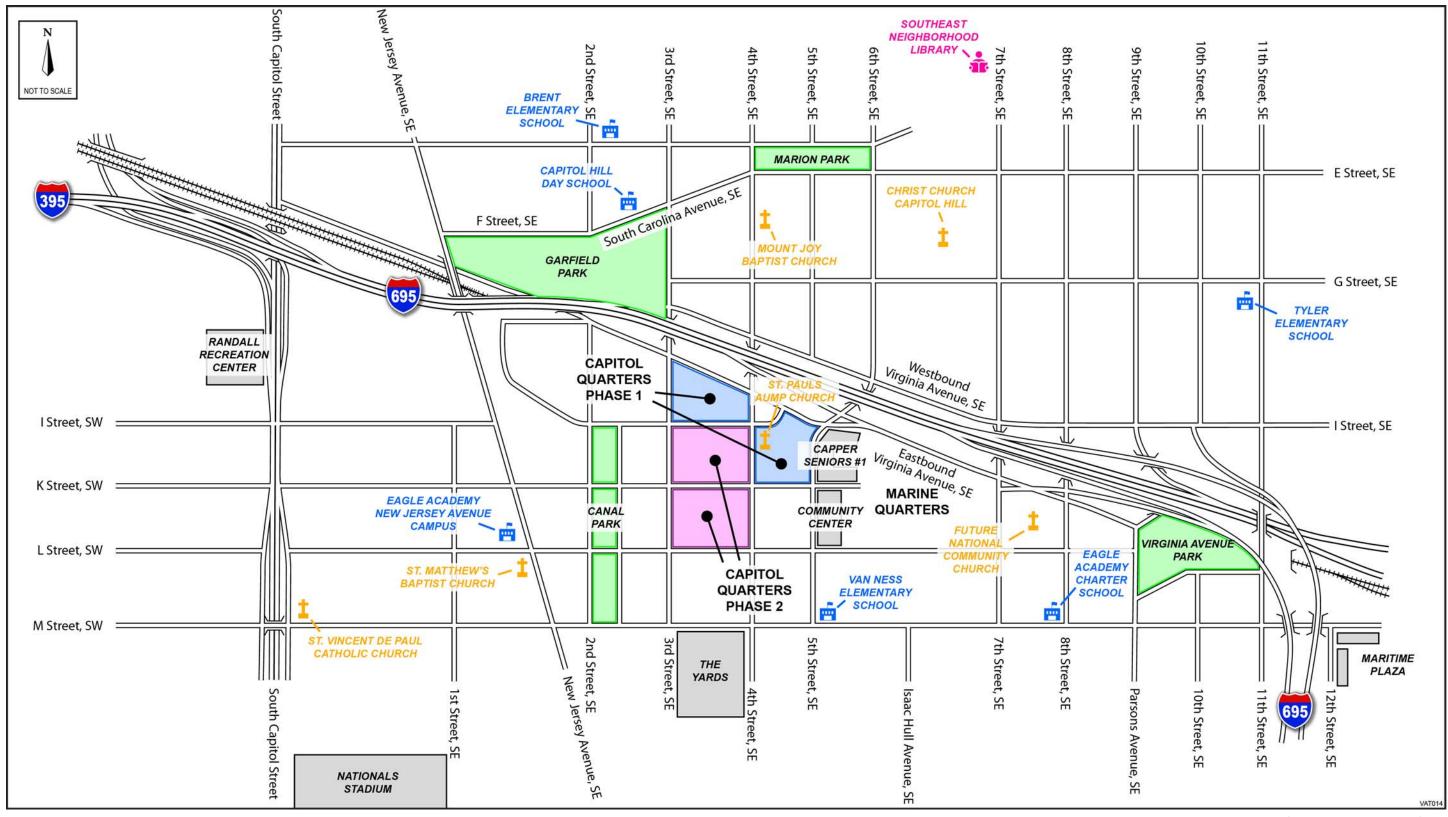


Figure A-8. Key Locations

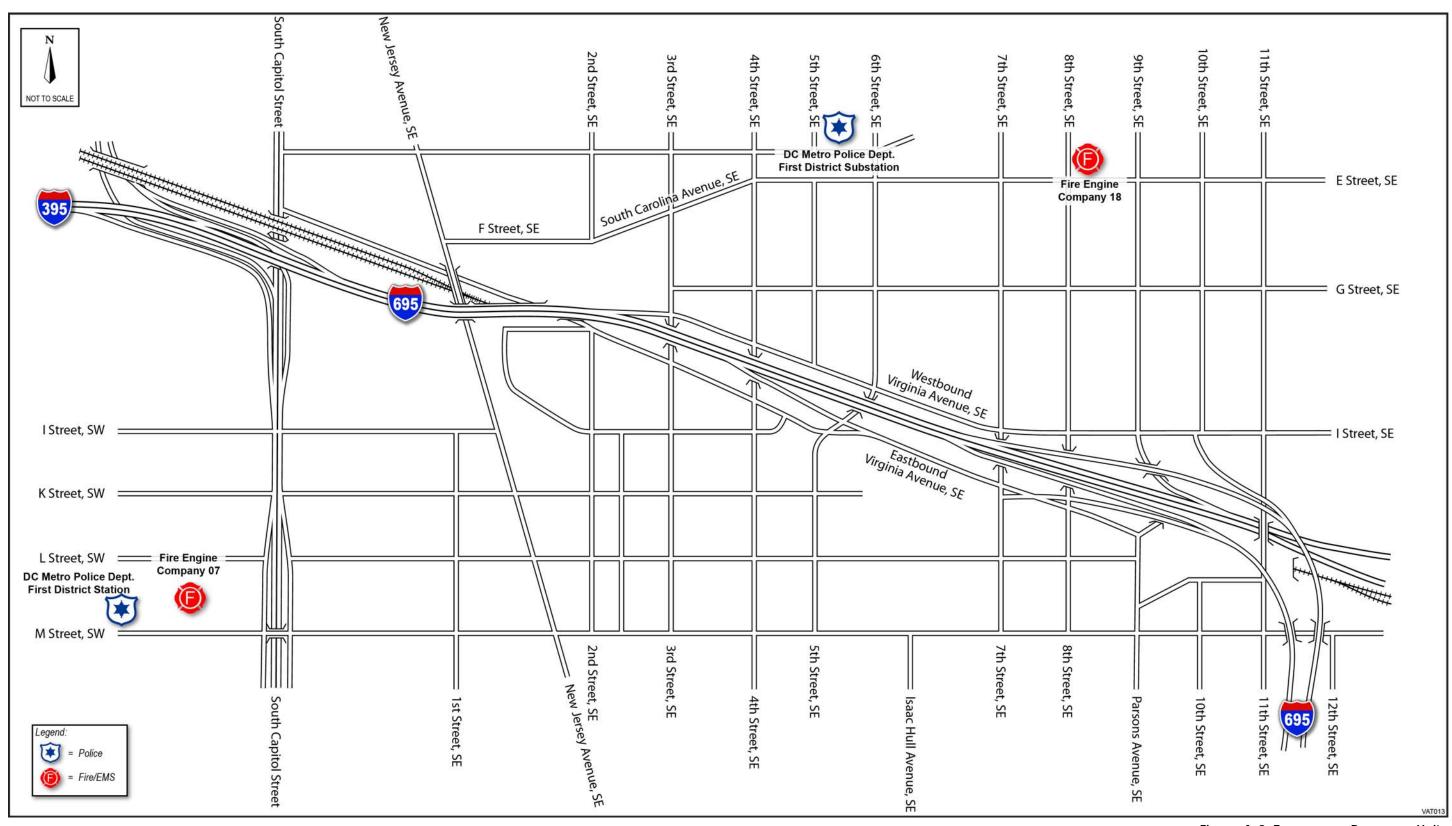


Figure A-9. Emergency Response Units



Figure A-10. Bus Stops and Bike Lanes

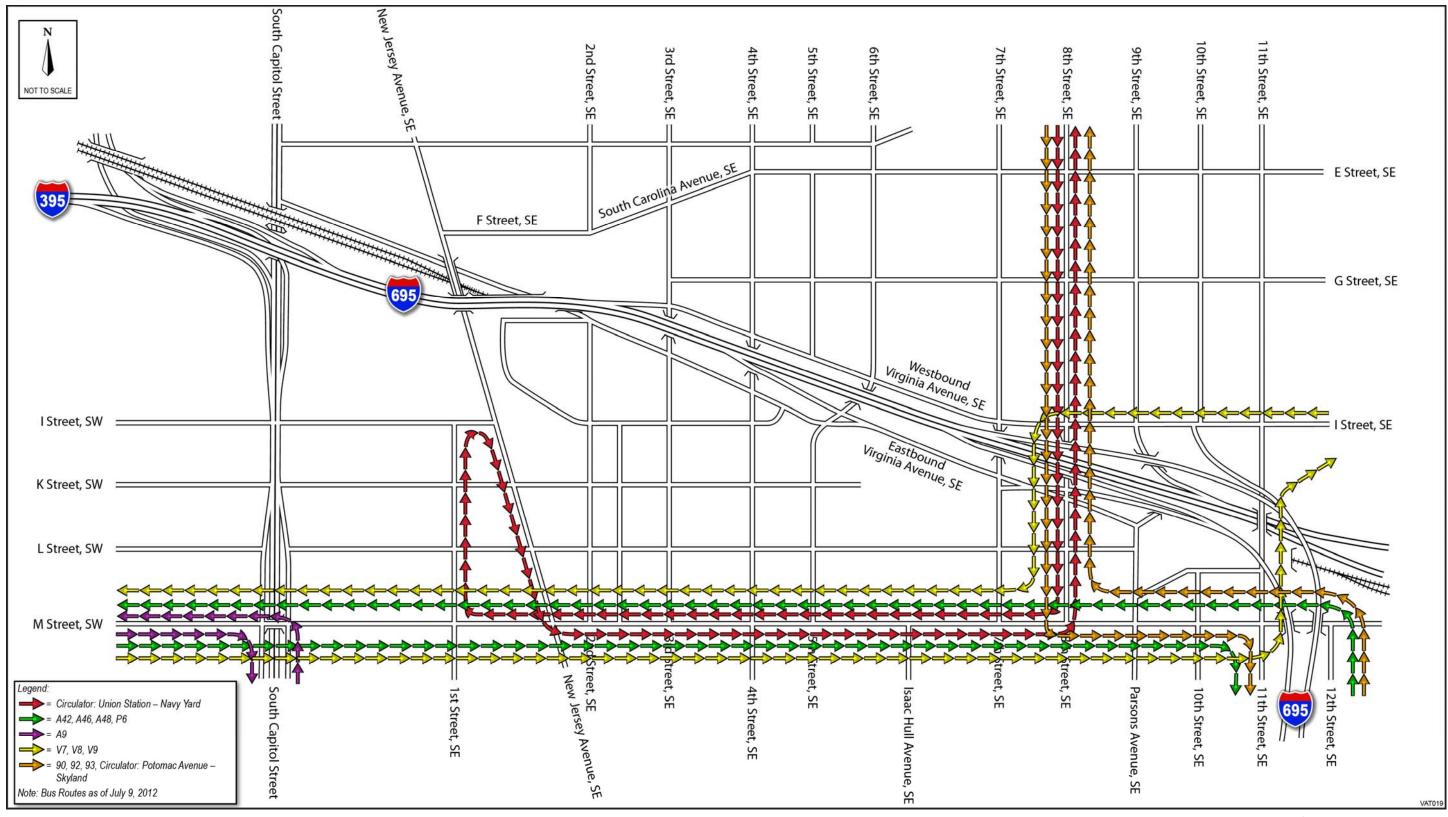


Figure A-11. Bus Routes

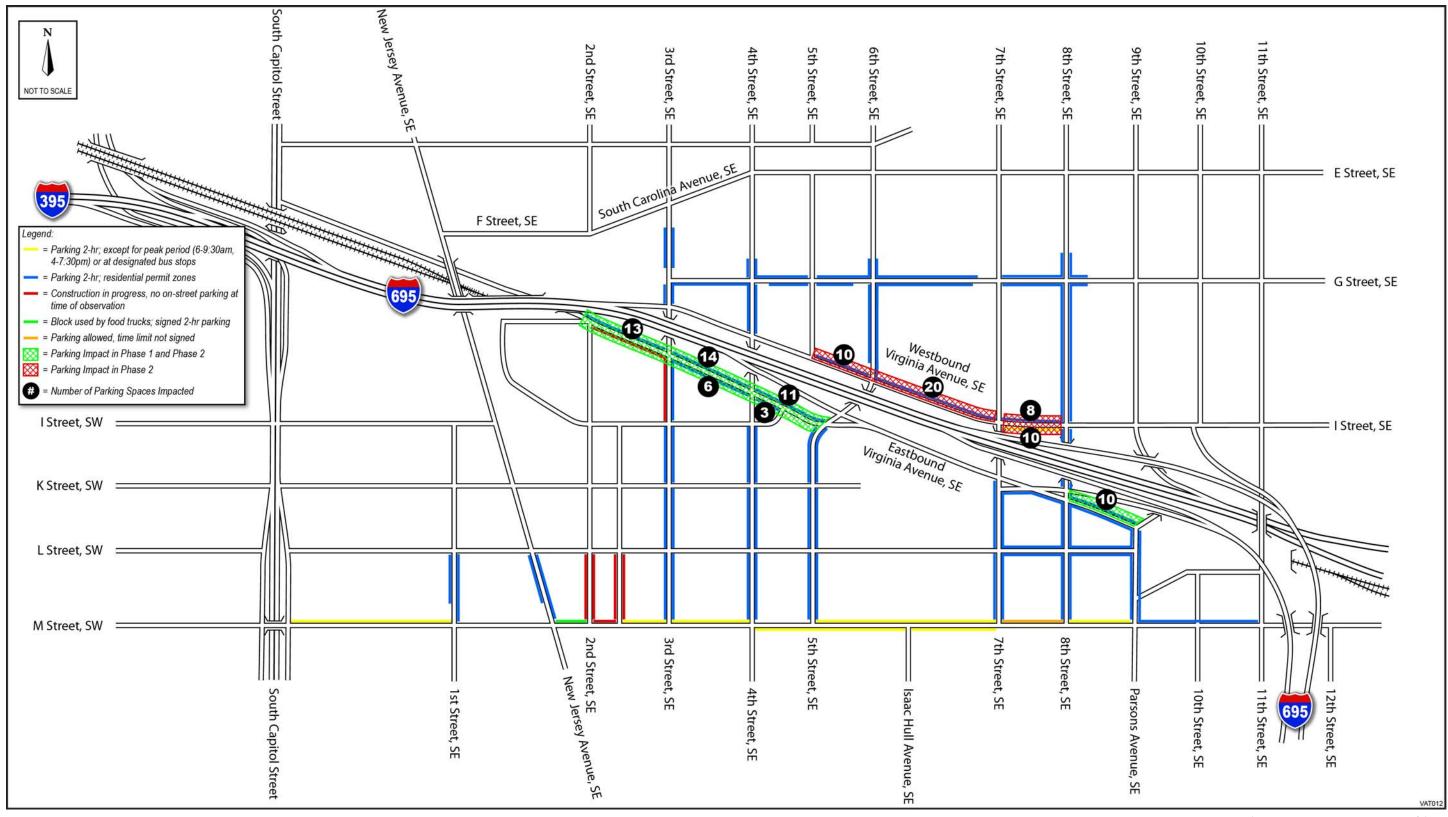


Figure A-12. Impact on Parking



Figure A-13. Construction Access and Staging Areas

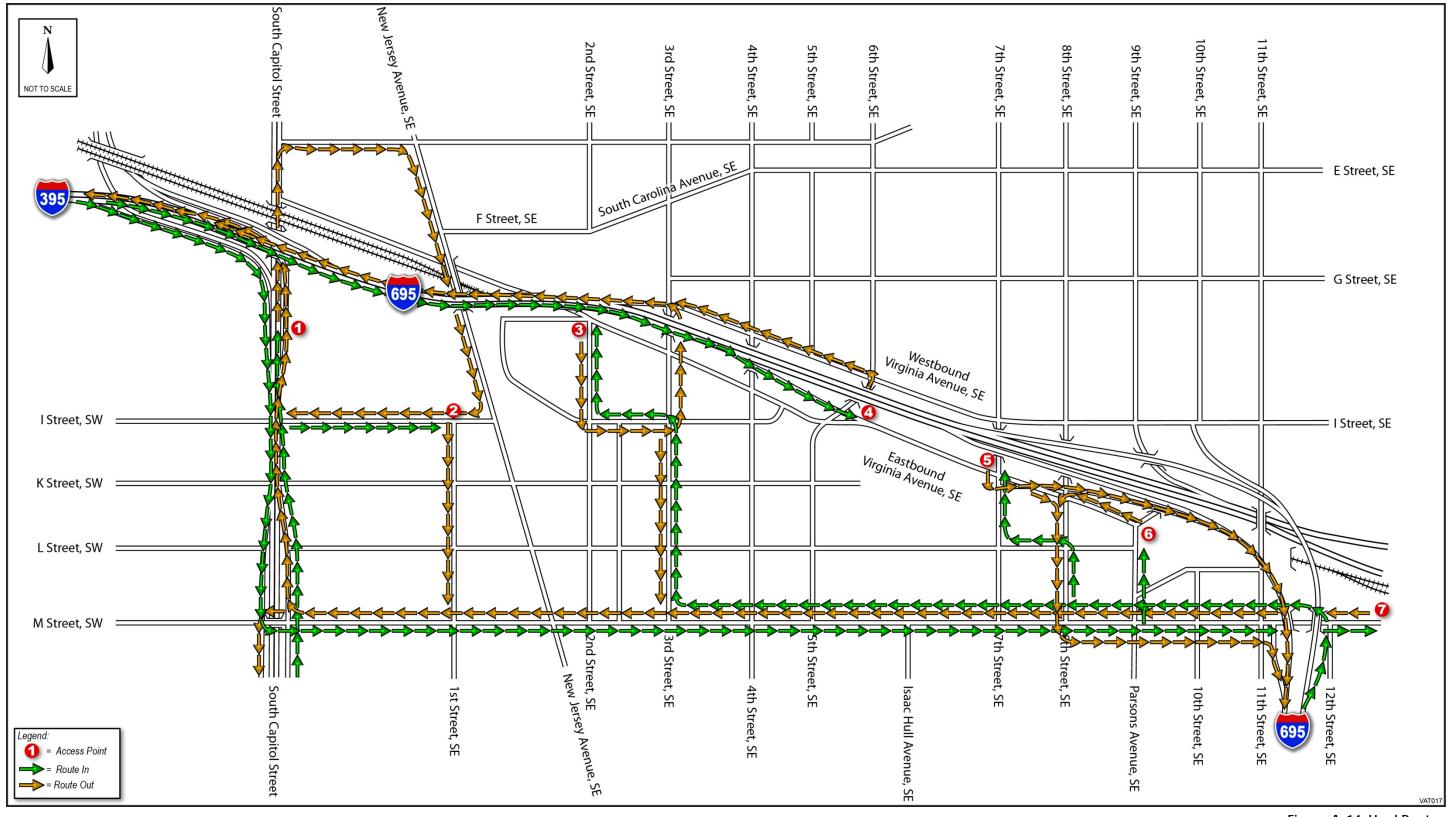
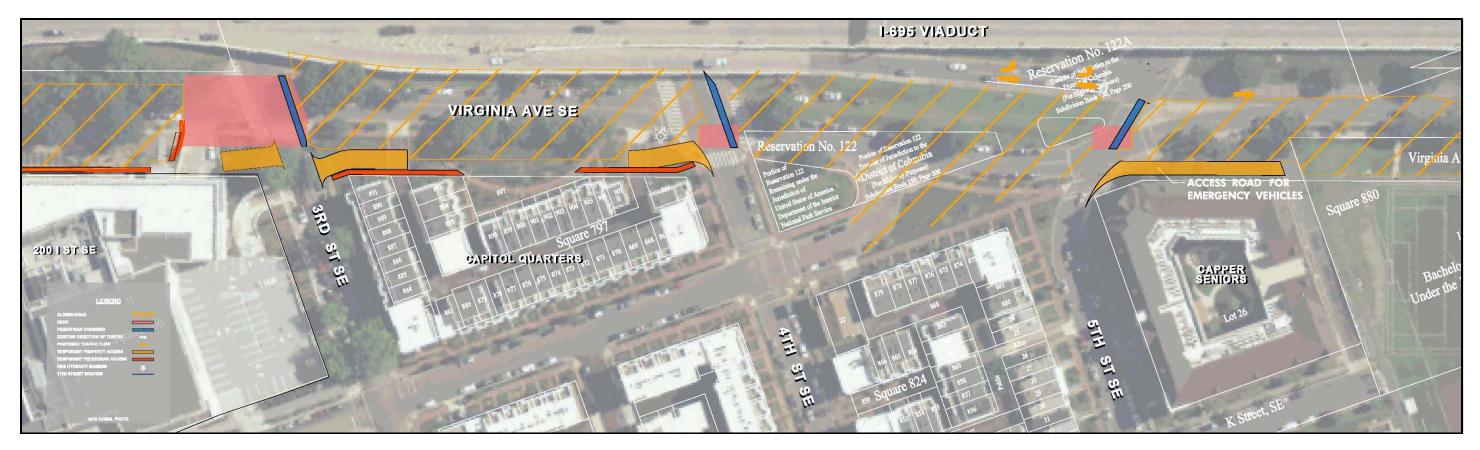


Figure A-14. Haul Routes



Figure A-15. Emergency Snow Routes



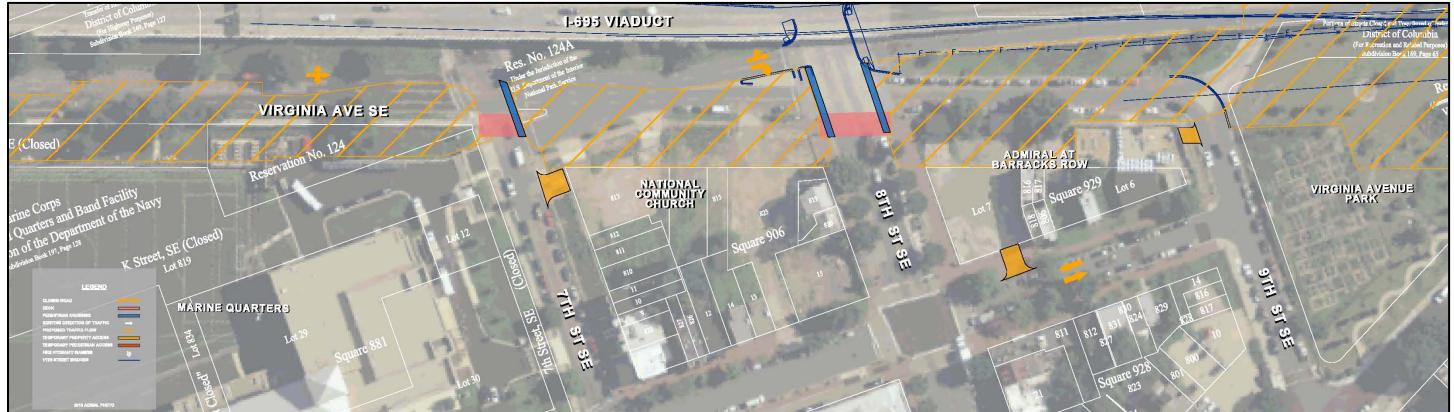


Figure A-16. Temporary Access/Driveways

SQUARE	LOT	OWNER	PREMISE ADDRESS
695	32	New Jersey Ave and Eye Street SE, LLC	82 "Eye" Street, SE
737	75	Square 737 LLC William C. Smith & Co	120-151 Canal Street, SE
766	38	District of Columbia	225 Virginia Avenue, SE or
			200 I "Eye" Street, SE
797	864	Robert T. Lee	801 4th Street, SE
797	865	Allison E. Clark	803 4th Street, SE
797	866	District of Columbia Housing Authority	334 "Eye" Street
797	881	District of Columbia Housing Authority	304 I "Eye" Street
797	882	District of Columbia Housing Authority	818 3rd Street, SE
797	883	District of Columbia Housing Authority	816 3rd Street, SE
797	884	Patrick M. Jordan	814 3rd Street, SE
797	885	Joseph E. Sarachene	812 3rd Street, SE
797	886	Michael S. Mancini	810 3rd Street, SE
797	887	Laura R. Jenkins	808 3rd Street, SE
797	888	Eric M. Weaver	806 3rd Street, SE
797	889	Irene Taguian	804 3rd Street, SE
797	890	Todd M. Bell	802 3rd Street, SE
797	891	Harry G Simmeth, Jr.	800 3rd Street, SE
797	893	Matthew V. Johnson	309 Virginia Avenue, SE
797	897	District of Columbia Housing Authority	Virginia Avenue, SE
797	906	Rajesh D. Bharwani	337 Virginia Avenue, SE
797	907	Andrew W. Shields	339 Virginia Avenue, SE
824	22	Conference of African Union First Colored	900 4th Street, SE
		Methodist Protestant Church, Sister W.M.	
		Footman, Trustee	
824	24	Eric B. Broderick	913 5th Street, SE
824	25	Mai T. Tran	915 5th Street, SE
824	26	Robert M. Siegel	919 5th Street, SE
824	27	Phillip Stutts	921 5th Street, SE
824	28	Mia M. Jordan	923 5th Street, SE
824	29	Carolyn E. Kimbrough	925 5th Street, SE
824	30	Aaron E. Lorenzo	927 5th Street, SE
824	31	Christopher D. French	929 5th Street, SE
824	32	Lexer Quamie	931 5th Street, SE
824	33	Sean C. & Dr. M. A. Massie More	933 5th Street, SE
824	41	Linda F. Roth	408 K Street, SE
824	42	Nicole Limino	410 K Street, SE
824	43	Jason R. Jones	412 K Street, SE
824	44	Nicholas A. Abramczyk	414 K Street, SE
824	45	Bryan H. Anschuetz	416 K Street, SE

Figure A-17. Property Ownership (Sheet 1 of 5)

SQUARE	LOT	OWNER	PREMISE ADDRESS
824	46	Alexander P. Champin	418 K Street, SE
824	847	District of Columbia Housing Authority	406 K Street, SE (Alley off of K St)
824	848	Lillian A. Dixon	952 4th Street, SE
824	849	James C. Claggett	950 4th Street, SE
824	850	Jared T. Stahl	948 4th Street, SE
824	851	John E. Chabay	946 4th Street, SE
824	852	District of Columbia Housing Authority	940 4th Street, SE
824	859	District of Columbia Housing Authority	914-938 4th Street, SE (Alley off of 4th St)
824	867	District of Columbia Housing Authority	908 4th Street, SE
824	868	District of Columbia Housing Authority	407 I "Eye" Street, SE (Alley off of "Eye" Street)
824	871	District of Columbia Housing Authority	907 5th Street, SE
824	872	District of Columbia Housing Authority	901 5th Street, SE
824	873	Michelle A. Jefferson	421 5th Street, SE
824	874	Wayne C. Barnard	419 5th Street, SE
824	875	Dale E. Owen	417 5th Street, SE
824	876	Matthew E. Washington	415 5th Street, SE
824	877	Andy D. Jones	413 5th Street, SE
824	878	Abigail A. Smith	411 5th Street, SE
824	879	Scott A. Faulk Trustee	409 5th Street, SE
824	880	Michael T. Hess	911 5th Street, SE
824	881	John C. Walton	909 5th Street, SE
878	925	District of Columbia Housing Authority	740 6th Street, SE
878	928	District of Columbia Housing Authority	623-659 "Eye" Street, SE
878	929	District of Columbia Housing Authority	Virginia Avenue, SE(Eye St Closed)
880	26	District of Columbia Housing Authority, Capper Senior I Limited Partnership	900 5th Street, SE
880	27	District of Columbia Housing Authority (under the jurisdiction of the Department of the Navy)	Marine Corps Bachelor Enlisted Quarters and Band Facility
880	818	United States of America (under the jurisdiction of the Department of the Navy)	Virginia Avenue, SE (Closed) Marine Corps Bachelor Enlisted Quarters and Band Facility
880	819	United States of America (under the jurisdiction of the Department of the Navy)	K Street, SE (Closed) Marine Corps Bachelor Enlisted Quarters and Band Facility
881	12	District of Columbia Housing Authority	7th and K Street, SE
881	29	District of Columbia Housing Authority	1011 7th Street, SE
881	30	District of Columbia Housing Authority	7th and L Street, SE
904	45	Mary B. Souza	710 "Eye" Street, SE
904	46	Estrellita U. Hicks	708 I "Eye" Street, SE

Figure A-17. Property Ownership (Sheet 2 of 5)

SQUARE	LOT	OWNER	PREMISE ADDRESS
904	59	Robert Bradley	720 "Eye" Street, SE
904	800	Jin W. Shin	753 & 755 8th Street, SE
904	801	William T. Heirs	(724?) I "Eye" Street, SE
904	802	Sheryl D. Algee	(722?) I "Eye" Street, SE
904	805	Community Connections, Inc.	706 I "Eye" Street, SE
904	855	Joseph M. Kondrot	702 I "Eye" Street, SE
904	864	Little Lights Urban Ministries	760 7th Street, SE
904	865	Christopher C. Cathcart	704 I "Eye" Street, SE
904	870	Sasha Bruce Youthwork INC	716 "Eye" Street, SE
904	871	Sasha Bruce Youthwork INC	712 "Eye" Street, SE
906	9	1016 7th Street LLC	1016 7th Street, SE
906	10	Timothy J. Casey	1014 7th Street, SE
906	11	John W. Thompson	1012 7th Street, SE
906	15	Calle Ocho LLC	720 L Street, SE
906	809	Hee S. Oh	700 L Street, SE
906	810	National Community Church	7th Street, SE
906	811	National Community Church	7th Street, SE
906	812	National Community Church	7th Street, SE
906	813	National Community Church	701 Virginia Avenue, SE
906	814	National Community Church	711 Virginia Avenue, SE
906	815	National Community Church	719 Virginia Avenue, SE
906	819	1003 8th Street LLC	1003 8th Street, SE
906	820	Annie L. Wrenn	1005 8th Street, SE
906	823	National Community Church	733 Virginia Avenue, SE
906	828	BP7 Development LLC	1018-1020 7th Street, SE
927	800	United States of America (Marine Barracks)	700 8th Street, SE (8th and Eye)
928	846	United States of America (Marine Barracks)	I "Eye" Street, SE (8th and Eye)
928	847	United States of America (Marine Barracks)	8th Street, SE (8th and Eye)
929	6	Richard Cardulla	821 Virginia Avenue, SE
929	7	801 Virginia Ave LLC ICP Partners/Potomac LLC	801 Virginia Avenue, SE
929	806	Washington Naval Yard Associates LLC	810 L Street, SE
		Sealander Brokerage LTD	
929	816	Washington Naval Yard Associates LLC	809 Virginia Avenu, SE
		Sealander Brokerage LTD	
929	817	Washington Naval Yard Associates LLC	811 Virginia Avenu, SE
929	818	Washington Naval Yard Associates LLC	808 L Street, SE
930	14	ICP Partners Potomac 810 LLC Potomac LLC	823-825 L Street, SE
930	811	E.F. Schaeffer	1100 8th Street, SE
930	812	David J. Lewis	811 L Street, SE
930	824	Khadijah R. Ali	817 L Street, SE

Figure A-17. Property Ownership

(Sheet 3 of 5)

SQUARE	LOT	OWNER	PREMISE ADDRESS
930	827	Truit R. Prosper, DDS	813 L Street, SE
930	829	Winfield S. Sealander	819 L Street, SE
930	830	Khadijah R. Ali	817 L Street, SE
930	831	Winfield S. Sealander	815 L Street, SE
952	7	Gladys Barnes	911 Potmac Avenue, SE
952	8	Marja L. Kennedy	913 Potmac Avenue, SE
952	9	Jon S. Sipes	915 Potmac Avenue, SE
952	10	Sylvia Hardy	917 Potmac Avenue, SE
952	16	Kenneth G. Tucker	919 Potmac Avenue, SE
952	17	Paula A. Ghiotto - US Consolate Merida	921 Potmac Avenue, SE
952	18	Thomas F. Oleksiak	923 Potmac Avenue, SE
952	19	Kendra L. Gaskins	925 Potmac Avenue, SE
952	20	Oliver L. Hancock	927 Potmac Avenue, SE
952	21	Lawrence "Larry" Samuel	929-931 Potomac Avenue, SE
952	34	Paramount Investments, Inc Vincent L.	900-916 M Street, SE
	7	Crivella	
976	14	Exxon Mobil Foundation	1022-1109 M Street, SE
976	810	Karajoel LLC	1001-1003 L Street, SE
999	All Lots	District of Columbia (DDOT)	Absorbed into Street System
999 E	800	District of Columbia (DDOT) Obtained in	Virginia Avenue @ 12th and M
(Former		Fee/Quitclaimed by United States Department of the Interior	Streets, SE
Res 128)		(NPS)	
1024	808	CSX Transportation	Virginia Avenue, SE
1048	806	CSX Transportation	M Street, SE
1048	807	CSX Transportation	M Street, SE
1048 S	1	1333 M Street SE, LLC	1333 M Street, SE
1048 S	801	1333 M Street SE, LLC	1333 M Street, SE
1048 S	802	1333 M Street SE, LLC	1333 M Street, SE
1067	814	CSX Transportation	M Street, SE
1067	815	District of Columbia (DDOT)	1401 L Street, SE
1080 E	806	CSX Transportation	15th Street, SE
1080 S	807	CSX Transportation	15th Street, SE

Figure A-17. Property Ownership

(Sheet 4 of 5)

SQUARE	LOT	OWNER	PREMISE ADDRESS
Res #17	800	United States of America Department of	"Garfield Park" (West)
(Sq 693 S)		Interior - National Park Service (under the	
		jurisdiction of The District of Columbia for Recreation and	
Res #17	800	United States of America Department of	"Garfield Park" (East)
(Sq 736 S)	800	Interior - National Park Service (under the	Garriera Fark (2030)
(34 730 3)		jurisdiction of The District of Columbia for Recreation and	
		related purposes)	
Res #122		United States of America Department of	Virginia Avenue & I "Eye" between
		Interior - National Park Service (a portion thereof	4 & 5th Streets, SE (Former Triangular
		under the jurisdiction of The District of Columbia for Highway Purposes)	Island)
Res #122A		United States of America Department of	Virginia Avenue at 5th & I "Eye"
1100 112271		Interior - National Park Service (under the	Streets, SE (Former Triangular Island)
		jurisdiction of The District of Columbia for Highway Purposes)	
Res #123		United States of America Department of	Virginia Avenue at 6th & I "Eye"
		Interior - National Park Service (under the	Streets, SE (Former Triangular Island)
		jurisdiction of The District of Columbia for Highway Purposes)	
Res #124		United States of America Department of	Virginia Avenue, SE - (Marine Corps
		Interior - National Park Service (under jurisdiction of	Barracks - Bachelor Enlisted Quarters and
		The United States Department of the Navy)	Band Facility)
Res#124A		United States of America Department of	Virginia Avenue at 7th Street, SE
		Interior - National Park Service	(Former Triangular Island)
Res #125		United States of America Department of	Virginia Avenue, SE (Former
		Interior - National Park Service (under the	Engine House #15)
		jurisdiction of The District of Columbia for Highway Purposes)	
Res#126	805	United States of America Department of	1001 Virginia Avenue, SE
(Sq 952)		Interior - National Park Service (under the	
10000 25 AV		jurisdiction of The District of Columbia for Recreation and	
Daa#127		related purposes)	Vinginia Avanua 9 12th Street CC
Res#127		United States of America Department of	Virginia Avenue & 12th Street, SE (North Portal)
		Interior - National Park Service (under the jurisdiction of The District of Columbia for Highway Purposes)	, , , , , , , , , , , , , , , , , , ,
		Jurisdiction of the district of columbia for highway Purposes)	
Res#129		United States of America Department of	Virginia Avenue at M Street, SE
		Interior - National Park Service	(Former Triangular Island)

Figure A-17. Property Ownership

(Sheet 5 of 5)

CLARK/PARSONS, JOINT VENTURE 100 M Street SE, Suite 1200 Washington, DC 20003 Phone: 202-775-3300 • Fax: 202-775-3420

Traffic Operational Analysis Report

VIRGINIA AVENUE TUNNEL RECONSTRUCTION PROJECT

September 2013

Virginia Avenue
Tunnel

Traffic Operational Analysis Report

VIRGINIA AVENUE TUNNEL RECONSTRUCTION PROJECT WASHINGTON, DC

TRAFFIC OPERATIONAL ANALYSIS REPORT

September 2013

Prepared by

CLARK/PARSONS, JOINT VENTURE

100 M Street SE, Suite 1200 Washington, DC 20003

Phone: 202-775-3300. Fax: 202-775-3420

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ACRONYMS AND ABBREVIATIONS

BID Business Improvement District

COG Metropolitan Washington Council of Governments

DC District of Columbia

DDOT District Department of Transportation

EB Eastbound

FHWA Federal Highway Administration

HCM Highway Capacity Manual

ITE Institute of Transportation Engineers

LOS Level of Service

mph Miles per hour

MOEs Measures of Effectiveness

MOT Maintenance of Traffic

NB Northbound

RFK Stadium Robert F. Kennedy Stadium

SB Southbound

TDM Transportation Demand Management

TMC Turn Movement Counts

TMP Transportation Management Plan

V/C Volume-to-Capacity Ratio

WB Westbound

WMATA Washington Metropolitan Area Transit Authority

INTRODUCTION

CSX railroad is proposing to reconstruct and widen the Virginia Avenue Tunnel to accommodate two rail tracks from 11th to 2nd Streets SE. The improvement to create a new two-track tunnel will be constructed using a cut-and-cover method; this is anticipated to close Virginia Avenue SE (south of I-695/Southeast Freeway) from 2nd to 9th Streets SE during the construction.

During the proposed closure of Virginia Avenue SE, the north-south movements along 3rd Street SE, 4th Street SE, 7th Street SE, 8th Street SE, and 11th Street SE will be maintained via temporary decking; this will maintain north-south circulation of vehicular, pedestrian, and bike traffic on these five roadways. Temporary decking will also be constructed along 5th Street SE to maintain pedestrian and bike traffic only. The intersections of Virginia Avenue at 2nd Street SE and at 5th Street SE will be closed during the construction period. The 6th Street SE/Navy Yard/Nationals Park exit from I-695/Southeast Freeway will remain open. During Phase 1¹ (1A and 1B), existing movements for this off-ramp will be maintained; however, during Phase 2², all traffic will be detoured north onto 6th Street SE. Additionally, the 8th Street SE on-ramp to I-295 southbound will be closed to reconstruct the ramp as part of the 11th Street Bridge reconstruction project; portions of that project are anticipated to be occurring during the same timeframe as the Virginia Avenue Tunnel project. Traffic formerly using the 8th Street SE ramp will be detoured to the I-295 southbound on-ramp at the M/11th Streets SE intersection during the reconstruction. The 9th Street SE on-ramp to the Southeast Freeway will be closed permanently as part of the 11th Street Bridge reconstruction project. Traffic will be diverted to the same ramp as the 8th Street SE ramp, and a new ramp will be constructed at 12th Street SE to maintain the connection to SE Freeway. The changes for the 8th Street SE, 9th Street SE, and 11th Street SE ramps are expected to occur regardless of the Virginia Avenue Tunnel project; the individual impacts of changes to these ramps are related to the 11th Street Bridge project.

Depending on the tunnel reconstruction alternative selected (see **Section 3.1** for further details regarding the tunnel alternatives), the reconstructed Virginia Avenue could open as early as September 2016 or as late as January 2018, based on the current draft construction schedule.

The purpose of this study is to analyze the traffic conditions during the construction and to recommend actions regarding potential traffic detours due to the closure of Virginia Avenue SE. A common horizon year of 2016 was used for the analysis throughout this report. The analysis includes:

¹ Applicable to Alternative 2 and 3

² Applicable to Alternative 2, 3, and 4

- Existing (2012) and future (2016) transportation conditions at study intersections assuming the sections of Virginia Avenue described above are not closed, to serve as the baseline for comparison.
- Detour options for the traffic coming from the Southeast Freeway off-ramp onto 6th
 Street SE during the proposed Virginia Avenue closure.
- Future (2016) transportation conditions at the study intersections assuming the sections
 of Virginia Avenue described above are closed and the traffic detour plans described
 above are implemented.
- Consideration of the 11th Street Bridge project's phasing and roadway closures.
- Consideration of the M Street Diversion Sewer project.

The overall project is bound by the following roadways:

- South Capitol Street to the west;
- Pennsylvania Avenue SE to the north;
- 11th Street SE to the east; and
- M Street SE to the south.

For purposes of this traffic operations analysis, the northern boundary extends only to G Street SE, with the exception of along 6th Street SE where it extends to D Street SE; the same western, southern, and eastern boundaries as cited above were used. The smaller study area was used as the project will have minimal, if any, traffic impacts north of G Street. Key study area intersections, representing locations where traffic was counted and where analysis was performed, are shown on **Figure A-1** in **Appendix A**. Note that for this report, all figures are included in Appendix A.

2 EXISTING CONDITIONS

2.1 ROADWAY CHARACTERISTICS

Table 2-1 presents the characteristics of the roadways within the study area, including the District of Columbia Department of Transportation (DDOT) roadway functional classifications.

Table 2-1. Roadway Characteristics

ROADWAY NAME	FUNCTIONAL CLASS	NUMBER OF LANES *	PARKING	SIDEWALKS	BIKE LANE
Virginia Avenue SE Eastbound (from New Jersey Avenue SE to 4 th Street SE)	Local	1 lane each direction	Yes	Yes	No
Virginia Avenue SE Eastbound (from 4 th Street SE to 9 th Street SE)	Collector	2 lanes (EB)	Yes	Yes	No
Virginia Avenue SE Westbound (from 7 th Street SE to 3 rd Street SE)	Collector	2 lanes (WB)	Yes	Yes	No
South Capitol Street	Principal Arterial	3 lanes each direction	No	Yes	No
M Street SE	Minor Arterial	3 lanes each direction	Yes	Yes	No
G Street SE	Local Road	1 lane each direction	Yes	Yes	No
I Street SE	Collector	3 lanes (WB)	Yes	Yes	No
3 rd Street SE	Local Road	1 lane each direction	Yes	Yes	No
4 th Street SE	Collector	1 lane (SB)	Yes	Yes	Yes
5 th Street SE	Local Road	1 lane (NB)**	Yes	Yes	No
6 th Street SE	Local Road	1 lane (NB)	Yes	Yes	Yes
7 th Street SE	Local Road	1 lane each direction	Yes	Yes	No
8 th Street SE	Minor Arterial	1 lane each direction	Yes	Yes	No
11 th Street SE	Minor Arterial	2 lanes each direction	Yes	Yes	No

^{*} turn lanes not included in lane tally. For example, 5th/6th Street SE as it passes under the Southeast Freeway has additional turn lanes that are not shown in this table.

As seen in **Table 2-1**, the major corridors in the study area are South Capitol Street and M Street SE. Virginia Avenue SE is located both south and north of the Southeast Freeway and operates as an east-west one-way pair or couplet. The key roadways are discussed in more detail below.

^{**} section from M to K Streets SE is two-way.

VIRGINIA AVENUE SE

Virginia Avenue SE runs southeast from 2nd Street SE to 9th Street SE within the study area. This street is a two-lane collector, and carries traffic coming from the Southeast Freeway off-ramp onto 11th Street SE. Much of the traffic that exits the freeway is destined to the office and other employment centers located to the north of M Street SE. The intersections with 2nd, 3rd, 4th, and 9th Streets SE are controlled by stop signs. The intersections with 5th/6th, 7th, and 8th Streets SE are signalized. Parking is provided via variable-rate meters. The land use immediately to the south of Virginia Avenue SE is residential medium density.

SOUTH CAPITOL STREET

South Capitol Street is a two-way principal arterial that runs north-south within the study area. South Capitol Street has three lanes operating in each direction. The posted speed limit is 25 miles per hour (mph) to the north of M Street SE. This corridor serves as the major commuter route from the Southeast Freeway off-ramp onto the M Street SE corridor, as well as to the Nationals Park. The southbound traffic from the freeway is controlled by a traffic signal at the merge point with South Capitol Street. The northbound traffic weaves across several lanes to reach the freeway ramps. The primary land use to the east and west of South Capitol is commercial/office high density in the study area.

M STREET SE

M Street SE is an arterial that runs east-west within the study area. M Street SE has three lanes operating in each direction with a posted speed limit of 25 mph. The majority of the intersections along the corridor are signalized. M Street SE crosses South Capitol Street at a grade-separated interchange. The interchange signal is controlled by a single traffic signal controller. At the interchange, on-street parking is permitted on the southern leg of southbound South Capitol Street. Parking is available via variable-rate meters on the east of South Capitol Street and M Street SE. Parking is not permitted during baseball games. Part of the land use on M Street SE is high density commercial/office to the west of 4th Street SE, and residential medium density to the east of 4th Street SE. South of the M Street is predominantly federal office facilities.

I STREET SE

I Street SE, a three-lane collector, runs one-way westbound to the north of the Southeast Freeway from 8th to 4th Streets SE within the study area. On-street/restricted parking is allowed. The land use to the north of I Street SE in the study area is residential medium density.

TRAFFIC CONTROL

The primary traffic control devices at the larger intersections within the study area are traffic signals, while the lesser intersections are under stop-control. Stop-control intersections are in two forms: all-way stop-control or two-way stop-control. The former is where all approaches, regardless of the number of approaches, must stop: i.e., the 7th/G Streets SE intersection. Two-way stop-control occurs when the major movements do not stop (though left turns yield right-of-way to oncoming traffic) and the minor movements must stop; stop-controlled intersections

along M Street SE, such as 5th and 7th Streets SE, are examples. Traffic control devices are shown in **Figure A-2**.

2.2 PARKING

On-street parking restrictions vary within the study area. In general, parking is restricted to two hours, unless allowed by residential permit. Some roadways also include the prohibition of on-street parking during rush hours as the parking lane is used as a travel lane during rush hours. On several blocks, no signage exists to indicate whether parking is prohibited or if there are restrictions on time allowed for parking. **Figure A-3** shows the parking restrictions on study area streets.

Within the study area, there are a number of surface lots open to the general public for use as daily parking. Many of these lots are also used for stadium parking. There are two parking structures at the Nationals Park baseball stadium, but are dedicated for ballpark patrons only. A number of the surface lots are slated for as future development sites so will be unavailable in future years. **Figure A-4** presents the parking lots (both surface and structured) and **Table 2-2** presents the tally of parking spaces at these lots open to the public.

Table 2-2. Parking	Lots Op	en to the	Public
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Red Lots =	1,704 spaces	Green lots :	= 934 spaces	Orange Lots	s = 604 spaces			
В	598	Н	198	Т	73			
С	597	J	60	U	73			
F	296	K	100	W	458			
M	96	L	126					
N	117	HH	450					
	Total Tally = 3,242 spaces							

^{*} Note that Nationals parking map refers to Lot G; however, Lot G was converted to the Fairgrounds, a town square consisting of food and crafts stalls. A similar map from JDLand.com also shows Lot G being available. Lot G is not included with the above tally. Lot H is underground parking.

2.3 NATIONALS PARK

The Nationals Park baseball stadium is located on South Capitol Street between N Street SE and Potomac Avenue SE. South Capitol Street is one of the access corridors to the Nationals Park. Parking lots, as described above, are often used as parking for National baseball games. A Transportation Demand Management (TDM) program was developed for the ballpark to increase the efficiency of the transportation network and to increase the use of alternative transportation modes. The Nationals no longer provide shuttle services to the Robert F. Kennedy (RFK) Stadium parking lots. The designated parking lots for Nationals games are presented in the previous section.

2.4 FRIDAY EVENING PARADES, MARINE BARRACKS, 8TH AND I STREETS SE

The Evening Parade, a concert by the U.S. Marine Band, Silent Drill Team & Bugle Corps, is held Friday evening (8:00 PM) during the summer (May through August) at the Marine Barracks located at 8th and I Streets SE Washington, DC. Guests can park at Maritime Plaza, where a free shuttle service is provided to and from the Barracks.

2.5 PEDESTRIAN AND BICYCLISTS

While the economic recession affected redevelopment of the study area, the pace of construction is increasing within the Capitol Riverfront. Walking, bicycling, and transit usage are prominent modes of travel within the study area; these modes are expected to continue growing and become an increasingly important aspect of mobility and quality of life. Some of the key areas experiencing high levels of pedestrian activity include:

- Around the two Navy Yard Metrorail Station entrances, located along M Street SE at both New Jersey Avenue SE and Half Street SE.
- Between the Navy Yard complex and three points to the north: 1) the parking lot opposite the Isaac Hull gate (located between 5th and 7th Streets SE); 2) the Marine Barracks (along 7th Street SE); and 3) Barracks Row (along 8th Street SE).
- Between the Navy Yard Metrorail Station (New Jersey Avenue entrance) and both the US Department of Transportation Complex and the Navy Yard complex.

There are pedestrian traffic flows between the various activities centers and bus stops within the area (as described below in **Section 2.6**). The area is generally well-served with marked pedestrian crosswalks at intersections, as presented in **Figure A-5**. Most, but not all, crosswalks at the signalized intersections include countdown pedestrian signal heads.

Bicycle activity will continue to grow within the area as it redevelops and as the expansion of the Capital Bikeshare program within the study area further increases bicycle travel. Four roadways have on-street bike lanes and a few others are designated as bike routes. Currently there are four Capital Bikeshare stations within the area, and these stations are linked with others in the area. **Figure A-6** presents the on-street bike lanes, bike paths, and Capital Bikeshare station locations, as well as bus stops.

2.6 TRANSIT

Figure A-7 presents the bus routes operating in the study area that have stops within or immediately adjacent to the study area; **Figure A-6** includes the bus stops within the area. Routes passing through the study area, such as those along the Southeast Freeway, are not shown if they do not have stops within the study area. Washington Metropolitan Area Transit Authority (WMATA) operates most bus service within the study area and is continually reviewing its bus operations and updates service as they deem necessary. Recent changes in this area include modification of the timetable (i.e., adjustment of headways) and routing (i.e., which roadways buses use). A major change that WMATA completed earlier this year, with no relation to this project, was to consolidate the P1, P2, and P6 routes into a single route. As of July 9, 2012, WMATA bus routes in the study area include:

 Route P6 (Anacostia-Eckington Line) operates along M Street SE during weekday and weekends. The AM peak period headway ranges between 15 to 20 minutes, while the PM peak headway ranges between 15 to 20 minutes. WMATA combined the P1, P2, and P6 routes on June 17, 2012 as part of its route restructuring.

- Routes 90, 92, and 93 (U Street-Garfield Line) operate within the study area along 8th Street SE and M Street SE during weekdays and weekends. The headways range from 8 minutes to 20 minutes during the peak hours.
- Routes V7, V8, and V9 (Minnesota Avenue M Street Line) operate along M Street SE during weekdays and weekends. The headways vary between 8 minutes and 15 minutes.
- Routes A42, A46, and A48 operate along M Street SE during weekdays and weekend as an afterhours service when Metrorail is not operating. These routes link the Archives and L'Enfant Plaza Metrorail Stations to the Anacostia area of Washington, DC.
- Route A9, which skirts the southwest corner of the study area, provides rush hour service, with varying headways between 10 and 20 minutes, from southern Anacostia to L'Enfant Metrorail Station, and travels along South Capitol Street and M Street SW.

In addition to WMATA, the DC Circulator operates two routes within the study area:

- Union Station Navy Yard: This route links Union Station with the Navy Yard Metrorail Station. Buses travel down 8th Street SE to M Street SE, then to 1st Street SE, and then to New Jersey Avenue SE, stopping at the Navy Yard Metrorail Station, where buses then return to the Union Station via M Street SE and 8th Street SE. Headways are approximately 10 minutes.
- Potomac Avenue Skyland: This route links Potomac Avenue Metrorail Station to the Skyland area in Anacostia. It travels along M Street SE and 8th Street SE within the study area. Headways are approximately 10 minutes.

Other operators also run commuter bus services in the area, such as OmniRide, which links Prince William County to Washington, DC and the Navy Yard. The Navy Yard Metrorail Station, served by the Green Line, is the only rail station within the study area. Service on the Green Line averages every 6 minutes during peak periods, while in the off-peak, service averages every 12 minutes. Capitol South (1st/C Streets SE) and Eastern Market (Pennsylvania Avenue/7th Street SE) Stations are located just to the north of the study area; these rail stations are served by both the Orange and Blue Lines.

2.7 DATA COLLECTION AND PEAK HOUR VOLUME

Turn movement counts (TMC) at intersections were performed in February and March 2012 at 30 study area intersections, and vehicle classification counts were performed at five locations. The count locations are shown on **Figure A-1** in **Appendix A.** The count locations were selected to include major intersections with high volumes of traffic (relative to the study area) and where traffic shifts (increases or decreases) could result from this project. Other locations were not selected as they are less likely to be affected by the project, or were locations where traffic volumes are low. The TMC were performed for three hours in the AM peak period (between 6:00 and 9:00 AM) and three hours in the PM peak period (between 3:30 and 6:30 PM). The raw intersection TMC data is presented in **Appendix B**. From the counts, the single highest (peak) hour was extracted for each intersection. The counts for each intersection were entered into an Excel spreadsheet, and adjacent intersections were balanced. For intersection pairs with non-

counted intersections between them, counts were not balanced. For example, the intersection at Half Street SE is located between the intersections at South Capitol Street and First Street SE, so the counts at these intersections were not balanced. If no intermediate major intersection or access points existed, then the departing volumes at one intersection were balanced with the approaching volume at the downstream intersection. The process was to use the higher of the two volumes, and adjust the other locations proportionately to the volumes. This process is necessary because counts were conducted on different days and traffic volumes can vary somewhat from day to day. The resulting Existing Conditions (Year 2012) AM and PM balanced volumes are presented in **Appendix C**.

2.8 2012 EXISTING CONDITIONS

AM and PM peak hour signal timing plans (Plan 5 and Plan 6, respectively) were obtained from DDOT for use in this study. The provided timing plans included all intersections within Wards 5 and 6, so was edited to include only study area intersections. The networks were then reviewed for accuracy in terms of the lane channelization during the peak hours. The networks were revised to reflect observed conditions, if necessary. The balanced volumes were entered into the network, and signal timings were as noted in the timing data provided (the signals were not optimized using the analysis software). The Measures of Effectiveness (MOEs), which consist of delay, volume-capacity (V/C) ratio, and Level of Service (LOS), were extracted from Synchro using the Highway Capacity Manual (HCM) Signals report. This report format follows the HCM procedures. **Table 2-3** presents the overall intersection MOEs for Existing Conditions.

Several intersections are closely spaced intersections that are controlled by one traffic signal controller to ensure smooth progression between each signal. DDOT's Synchro files were used as a base for this analysis and several locations are coded as multiple intersections that are closely spaced. Synchro reports LOS for each location individually, even though it is controlled by one traffic signal controller. These locations, as shown in **Figure A-8** and **Figure A-9**, are at South Capitol Street at I Street SE (including the on-ramp from the Southeast Freeway) and Virginia Avenue SE at 8th Street SE/access to the 11th Street Bridge.

In general, overall operations at most signalized intersections are acceptable (LOS D or better), except at two locations: M Street SE and the southbound off-ramp from South Capitol Street (AM peak hour), and westbound Virginia Avenue SE at 3rd Street SE/on-ramp to the Southeast Freeway (PM peak hour). At other intersections, individual approaches may operate at undesirable LOS, while the overall intersection LOS is acceptable. The full MOE table is presented in **Appendix D**; this appendix includes all scenarios analyzed. Also contained in Appendix D are the Synchro HCM Signals and HCM Unsignalized reports, which follow the HCM procedures.

Table 2-3. Existing Conditions MOEs – Signalized Intersections

	AM	Peak Ho	ur	PM Peak Hour		
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	11.4	0.57	В	15.4	0.63	В
South Capitol Street and I (Eye) Street SE (Right)	18.1	0.68	В	17.3	0.47	В
Ramps from freeway at South Capitol Street SB	33.3	0.65	С	26.9	0.56	С
South Capitol Street at M Street SE - SB Intersection	152.4	0.89	F	21.4	0.43	С
South Capitol Street at M Street SE - NB Intersection	15.3	0.52	В	21.9	0.49	С
M Street SE at 1 st Street SE	15.7	0.36	В	15.8	0.37	В
M Street SE at New Jersey Avenue SE	13.4	0.24	В	12.1	0.32	В
M Street SE at 3 rd Street SE	6.0	0.19	Α	9.9	0.24	Α
M Street SE at 4 th Street SE	20.1	0.29	С	12.5	0.24	В
M Street SE at 8 th Street SE	18.2	0.52	В	13.3	0.49	В
M Street SE at 9 th Street SE	10.7	0.31	В	13.9	0.52	В
M Street SE at 11 th Street SE	20.0	0.55	С	42.6	0.73	D
Virginia Avenue SE EB at 5 th Street SE	34.8	0.10	С	37.4	0.21	D
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	16.6	0.51	В	14.6	0.40	В
Virginia Avenue SE EB at 7 th Street SE	6.0	0.25	Α	17.2	0.42	В
Virginia Avenue SE EB at 8 th Street SE	34.7	0.29	С	42.5	0.33	D
Virginia Avenue SE ramp at 8 th Street SE	12.4	0.30	В	12.7	0.41	В
I (Eye) Street SE at 8 th Street SE	18.9	0.49	В	19.2	0.48	В
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	7.6	0.37	Α	10.1	0.52	В
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	6.9	0.44	Α	27.0	0.34	С
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	29.1	0.45	С	17.4	0.39	В
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	33.6	0.78	С	81.5	1.12	F
G Street SE at 8 th Street SE	9.1	0.29	Α	11.4	0.38	В
M Street SE at Isaac Hall Avenue SE	4.1	0.28	Α	23.2	0.52	С

Delay is measured as average delay in seconds per vehicle. LOS is a qualitative measure of the intersection's operational performance and is based on average delay.³

Several unsignalized intersections are located within the study area, as presented in **Table 2-4**. The operational analysis of the unsignalized intersections indicate that most study area intersections operate at acceptable LOS, with the exception of the southbound approach of 7th Street SE to M Street SE, where one of the lane groups operates at LOS F in the AM and LOS E in the PM. Field observations confirmed poor operations on this approach.

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³ The level of service (LOS) characterizes the operating conditions at the intersections in terms of delay. In general, LOS can be characterized as follows: A = free flow; B = reasonably free flow; C = stable flow; D = approaching unstable flow; E = unstable flow; F = forced or breakdown flow.

Table 2-4. Existing Conditions MOEs - Unsignalized intersections

			AM Pea	ak Hour			PM Pe	ak Hour			
		by Lane	Group	by Inter	section	by Lane	Group	by Inte	rsection		
Intersection	Lane	-		-	HCM	-		-	HCM		
Name	Group	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS		
M Street SE	EB	0.9	Α			2.5	Α				
at 7 th Street	WB	0.0	Α	14.8	N/A*	0.0	Α	4.6	N/A*		
SE	NB	N/A	N/A			N/A	N/A				
	SB	56.3	F			45.0	Е				
Virginia	EB	6.8	Α			6.8	Α				
Avenue SE	WB	7.4	Α	7.2	Α	7.3	Α	6.9	Α		
at 2 nd Street SE	NB	6.7	Α			6.7	Α				
JL .	SB	7.3	Α			0.0	Α				
Virginia Ave SE at 3 rd	EB	9.9	Α			15.5	С				
		N/A*	14.2	В	1.9	N/A*					
Street SE, S of Freeway	NB	0.5	Α		,, .	0.1	Α		. 1// 1		
UI Fleeway	SB	1.7	Α			3.4	Α				
Virginia Ave	EB	N/A	N/A			N/A	N/A				
SE at 4 th	WB	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Street SE, S	NB	N/A	N/A				, , ,	1 4/7 (N/A	N/A	1 4// (
of Freeway	SB	N/A	N/A			N/A	N/A				
Vincipio Ave	EB	7.2	Α	7.2 A	7.7	Α					
Virginia Ave SE at 9 th	WB	N/A	N/A		Δ	N/A	N/A	7.7	Α		
Street SE	NB	7.3	Α			7.7	Α		Α		
	SB	N/A	N/A			N/A	N/A				
0.00	EB	7.8	A		8.0	Α					
G Street SE at 4 th Street	WB	8.3	Α	9.9	Α	8.2	Α	9.3	Α		
SE	NB	N/A	N/A	3.3	Α	N/A	N/A	3.5	^		
	SB	10.2	В			9.7	Α				
	EB	8.6	Α			8.4	Α				
G Street SE at 6 th Street	WB	8.9	Α	12.3	В	8.6	Α	10.0	Α		
SE	NB	13.2	В	12.0	Ь	10.7	В	10.0	^		
	SB	N/A	N/A			N/A	N/A				
	EB	7.8	Α			8.5	Α				
G Street SE at 7 th Street	WB	8.1	Α	8.0	Α	8.6	Α	8.9	Α		
SE	NB	8.0	Α	0.0	Α	9.5	Α	0.9	^		
	SB	7.9	Α			8.4	Α				
	EB	8.6	Α			8.4	А				
E Street SE at 6 th Street	WB	8.4	Α	11.4	В	7.9	А	9.6	٨		
SE	NB	12.3	В	11.4	D	10.1	В	9.0	Α		
	SB	N/A	N/A			N/A	N/A				
	EB	8.8	Α			8.3	Α				
D Street SE at 6 th Street SE	WB	8.5	Α	11.2	11.2	11.2	_	7.9	Α	0.0	
	NB	12.0	В				В	10.4	В	9.9	Α
	SB	N/A	N/A			N/A	N/A				

Gray shading indicates approach does not exist, purple shading indicates that analysis of this intersection configuration is not possible per HCM procedures. Field observations indicate acceptable operations. * The HCM procedures do not calculate an overall LOS for two-way stop controlled intersections.

2.9 2016 TRAFFIC FORECAST

The year 2016 was chosen as the analyses year for the various stages of construction. This is because the construction for Alternatives 2 and 3 is anticipated to be completed in 2016. While individual phases may be complete before 2016, it represents the worse-case analysis year because traffic is expected to increase each year within the study area based on its redevelopment. From 2012 to 2016, it is anticipated that over 7.7 million square feet of development will be constructed and occupied in the study area. This redevelopment consists of new, or renovated, residential complex, office buildings, retail, hotel and mixed-uses. For this study, the Capitol Riverfront Business Improvement District (BID) was contacted to obtain data on the size, types and locations of each development, the year the project is expected to be completed, and the number of parking spaces (where such data was available). Because some individual site information is considered confidential at this time, individual site information is not included in this report. Overall, the area, during this period will add:

- over 4.1 of million square feet of office space,
- over twenty thousand office employees (assuming 200 square feet per employee),
- over 2,600 new residential units,
- over 400,000 square feet of retail space, and
- nearly 400 new hotel rooms.

The information provided was used to calculate the number of trips that would be generated by each development. The process used included the following steps:

- Use Institute of Transportation Engineers (ITE) standard trip generation rates for each development to estimate AM and PM peak hour trips (standard rates)⁴.
- Apply factors to the above trips to account for trip reductions of retail trips to reflect
 pass-by trips (i.e. a trip that was already in the area that would make a stop in the
 middle of the overall trip such as stopping at the store on the way from work to home).
- Use the ITE parking generation rates to estimate standard daily parking trips to compare against the actual parking spaces being provided at each development and to generate a parking ratio between the demand and supply.
- Develop adjusted trip generation rates reflecting reduced motor vehicle trips rates due
 to the study area's high transit mode split based on high levels of transit service
 (Metrorail and bus services), limited parking provided in new developments, and
 reflecting the fact that the mixed-use character of the study area promotes trips that are
 made by walking (resident-work) or alternative modes. The reductions used to develop
 the vehicle trip generation rates were validated against other studies and reports ^{5,6}.

⁴ Trip Generation Manual, 2008. Institute of Transportation Engineers, Washington DC. 8th Edition.

⁵ Transportation Impact Analysis Guidelines for Environmental Review, October 2002. The Planning Department, City and County of San Francisco.

⁶ Crediting Low-Traffic Development, August 2005. Nelson/Nygaard Consulting Associates, San Francisco.

 Review the trip generation that will likely develop for AM and PM site trips, considering that the likely vehicle trip generation is lowered by mixed-use development and high quality transit services, and is constrained by available parking. It is important to note that the number of overall person-trips generated by the new development reflects all of the expected development; the number of vehicle trips is constrained by the factors cited above.

Based on the analysis of this study, new study area development was estimated to generate more than 3,000 vehicle trips in to and out of the study area in the AM peak hour, while during the PM peak hour, it would generate more than 3,800 vehicle trips. Site traffic for each development was distributed onto the roadway network for both AM and PM conditions.

In addition to new trips on the network based on study area development, a modest increase in "background" traffic was assumed to reflect general growth in traffic from beyond the study area. For the background traffic, a growth rate of 0.5 percent per year was assumed. The distributed site trips and the background growth were layered onto the Existing Conditions volumes to develop the total 2016 No-Build volumes. No-Build Conditions AM and PM peak hour volumes are presented in **Appendix C**.

2.10 2016 NO-BUILD CONDITIONS

The AM and PM Existing Conditions Synchro models were used as the base for the 2016 No-Build analysis, and the No-Build volumes, as described in the previous section, were input into the networks. Signal timing plans were not optimized in this step. The purpose of performing No-Build analysis is to provide a benchmark to compare the various construction stages in terms of whether any degradation of LOS occurs. The MOEs were extracted from Synchro using the HCM Signals report. **Table 2-5** presents the MOEs for No-Build Conditions. One thing to note, as discussed in the next chapter, is that the M Street Diversion Sewer project is expected to reduce the number of lanes on M Street SE from three per direction to two per direction between 7th and 11th. This will impact several signalized intersections. For that reason, Synchro analysis was done at those intersections assuming both a two-lane and a three-lane scenario. A two-lane M-Street will be in place during Phase 1 of the CSX Virginia Avenue Tunnel project.

Table 2-5. 2016 No-Build Conditions MOEs – Signalized Intersections

	AM Peak H				PM Peak Hour		
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS	
South Capitol Street and I (Eye) Street SE (Left)	11.7	0.79	В	15.8	0.70	В	
South Capitol Street and I (Eye) Street SE (Right)	20.4	0.75	С	23.8	0.60	С	
Ramps from freeway at South Capitol Street SB	155.4	1.02	F	48.0	0.74	D	
South Capitol Street at M Street SE - SB Intersection	520.5	1.76	F	61.8	0.70	Е	
South Capitol Street at M Street SE - NB Intersection	88.0	0.84	F	146.5	1.22	F	
M Street SE at 1 st Street SE	57.8	0.84	Е	83.6	0.96	F	
M Street SE at New Jersey Avenue SE	16.4	0.47	В	15.2	0.60	В	
M Street SE at 3 rd Street SE	8.2	0.39	Α	14.6	0.59	В	
M Street SE at 4 th Street SE	20.2	0.46	С	16.2	0.55	В	
M Street SE at 8 th Street SE *	18.6	0.71	В	21.4	0.79	С	
M Street SE at 9 th Street SE *	13.3	0.50	В	17.5	0.66	В	
M Street SE at 11 th Street SE *	23.9	0.70	С	139.1	1.05	F	
Virginia Avenue SE EB at 5 th Street SE	35.1	0.12	D	47.0	0.36	D	
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	17.6	0.53	В	11.5	0.44	В	
Virginia Avenue SE EB at 7 th Street SE	6.2	0.27	Α	17.7	0.46	В	
Virginia Avenue SE EB at 8 th Street SE	32.1	0.32	С	47.3	0.38	D	
Virginia Avenue SE ramp at 8 th Street SE	12.0	0.33	В	15.4	0.50	В	
I (Eye) Street SE at 8 th Street SE	19.1	0.52	В	20.1	0.53	С	
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	8.4	0.39	Α	12.0	0.56	В	
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	7.2	0.46	Α	28.3	0.37	С	
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	30.3	0.47	С	22.6	0.42	С	
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	46.2	0.84	D	125.4	1.26	F	
G Street SE at 8 th Street SE	9.1	0.31	Α	10.9	0.42	В	
M Street SE at Isaac Hall Avenue SE	5.3	0.45	Α	17.5	0.60	В	
M Street reduced to two lanes due to	Diversion	Sewer p	roject				
M Street SE at 8 th Street SE **	18.6	0.71	В	136.9	1.10	F	
M Street SE at 9 th Street SE **	13.3	0.50	В	15.0	0.85	В	
M Street SE at 11 th Street SE **	23.9	0.70	С	139.1	1.05	F	
*							

^{*} assumes three lanes per direction on M Street

Although No-Build volumes increase significantly over Existing Conditions, most signalized intersections will continue to operate at acceptable LOS. However, the number of intersections operating at undesirable LOS increases from two to five over Existing Conditions. Those intersections which are expected to operate at undesirable LOS in 2015 are listed below (the time period in which undesirable LOS occurs is shown in parentheses).

- Ramps from freeway at Southbound South Capitol Street (AM)
- South Capitol Street ramps at M Street (AM and PM)

^{**} assumes two lanes per direction on M Street

- M Street SE at 11th Street SE (PM) *note intersection being upgraded as part of the 11th Street Bridge project, configuration will change
- Virginia Avenue WB at 3rd Street north of SE Freeway (PM)

This degradation of service levels as compared to Existing Conditions is due to the redevelopment in this area, and is not caused by either the Virginia Avenue Tunnel project or other roadway construction projects within the area. The M Street Diversion Sewer project (which is slated for completion in mid-2014) will temporarily reduce the number of lanes on M Street from three to two per direction. This will have impact on eastbound M Street during the PM peak period, as most of the increase in delay at the intersections is due to the Diversion Sewer project.

No-Build analysis was also performed at Study Area unsignalized intersections; a summary of the results is included in **Table 2-6**. The findings are that most intersections would operate at acceptable LOS, with the exception of the southbound approach of 7th Street SE to M Street SE. For this intersection, the lane group LOS is F for both time periods, and the delay for the lane group has increased over Existing Conditions. As indicated above, this reduction in service levels is caused by the increased development in the area, and not related to this project. It indicates that with increased delay, a signal may be warranted in the future. The full MOE tables are presented in **Appendix D**.

Table 2-6. 2015 No-Build Conditions MOEs – Unsignalized intersections

Name				AM Pe	ak Hour			PM Pe	ak Hour			
Intersection Name Group Delay LOS			by Lane	Group	by Inter	section	by Lane	Group	by Inte	rsection		
M Street SE EB 1.0			-	-		HCM	-	•		HCM		
M Street SE at 7 "Street SE SE SB 357.3 F S	Name		•		Delay	LOS	•		Delay	LOS		
at 7th Street SE SE SB 357.3 F SB 357.3 F SB 37.3 E SB 37.3 F SB 37.4 A SB 37.3 E SB 37.3 A SB 37.3 E SB 37.4 A SB 37.3 E SB 37.3 A SB 37.3 E SB 37.3 A SB 3	M Street SE				_		-					
SB 357.3 F	at 7 th Street		0.0	А	75.3	N/A	0.0	А	3.5	N/A		
Virginia Avenue SE at 2°d Street SE SE of Freeway EB O.9 A O.0	SE		257.2	_			27.2	F				
Avenue SE at 2 nd Street SE at 3 nd Street SE, S at 3 nd Street SE at 4 nd Street SE												
A									-			
SE	Avenue SE at 2 nd Street				7.1	Α			6.9	Α		
Virginia Ave SE at 3 rd Street SE, so of Freeway SB									-			
WB 13.6 B Avg SE at 3 rd Street SE, S of Freeway SB 1.1 A A A A A A A A A							1					
Street SE, S of Freeway	Virginia Ave				-							
of Freeway SB 1.1 A 2.8 A Virginia Ave SE at 4th Street SE, s of Freeway WB NB N/A					4.4	N/A			2.0	N/A		
Virginia Ave SE at 4th SE at 4th STreet SE, S of Freeway SB N/A <									-			
Street SE, S of Freeway SB	-		1.1				2.0					
Street SE, S of Freeway	Virginia Ave											
of Freeway SB Viriginia Ave SE at 9 th Street SE EB 7.2 A Street SE Street SE at 4 th Street SE at 4 th Street SE at 6 th Street SE SB EB 7.9 A 7.7 A A 7.7 A G Street SE at 6 th Street SE SB BB 10.0 B 8.1 A 9.8 A G Street SE at 6 th Street SE at 6 th Street SE SB BB 12.6 B 8.9 A A 10.9 B B SB 1.1.7 B 8.9 A A 9.5 A B SB 8.1 A 8.1 A 8.9 A 9.5 A B SB 8.1 A 8.9 A 9.5 A B SB 8.1 A 8.9 A 8.9 A B SB 8.1 A 8.6 A 8.1 A B SB 8.1 A 8.6 A				N	/A		N/A					
Street SE SB T.2 A WB SE at 9 Street SE SB SB T.2 A T.7 T.7 T.7 A T.7 T.7 T.7 T.7 A T.7												
Virginia Ave SE at 9th NB 7.3 A 7.7 A 7.7 A A A A A A A A A			7.2	Δ	7.2		7.8	Δ				
NB	Virginia Ave		1.2	Α			7.0	A	i			
Street SE			7.3	Δ		Α	7 7	Δ	7.7	Α		
G Street SE at 4 th Street SE at 4 th Street SE at 4 th Street SE at 6 th Street SE	Street SE		7.0	7.			7 : 7	7.	i			
G Street SE at 4 th Street SE at 4 th Street SE at 6 th Street SE SB			7.9	Α			8.1	Α				
at 4 "Street SE SE NB 10.0 B G Street SE at 6th Street SE at 6th Street SE at 7th Street SE at 7th Street SE at 6th Street SE					-				-			
SB 10.4 B 10.3 B 8.6 A 8.6 A 8.6 A 8.8 A 10.9 B 8.8 B 10.4 B 12.6 B 10.3 B 10.9			J		10.0	В			9.8	Α		
G Street SE at 6 th Street SE A	SE		10.4	В			10.3	В				
G Street SE at 6 th Street SE at 7 th Street SE at 6 th Street SE at 8 th Street SE S				Α			!	Α				
At 6" Street SE		WB	8.9		1	_	8.8		1	_		
SE SB 7.9 A 8.9 A 8.9 A 8.9 A 9.5 A 8.8 A 9.5 A 8.1 A 8.1 B 8.6 A 8.1 A 9.5 B 8.6 A 8.1 A 11.7 B 11.0 B 10.4 B B 11.0 B 10.8 B 8.5 A 11.4 B 10.8 B		NB			12.6	В			10.9	В		
G Street SE at 7 th Street SE at 7 th Street SE at 6 th Street SE a	SE	SB							i l			
at 7 th Street SE NB 8.1 A SB 8.1 A E Street SE at 6 th Street SE at 6 th Street WB 8.5 A D Street SE at 6 th Street EB 8.9 A D Street SE at 6 th Street WB 8.5 A A B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B B <		EB	7.9	Α			8.9	Α				
SE NB 8.1 A SB 8.1 A SB 8.1 A E Street SE at 6th Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street WB 8.5 A D Street SE at 6th Street NB 11.4 B D Street SE at 6th Street NB 10.8 B	G Street SE	WB	8.3	Α			8.9	Α	1			
SB 8.1 A 8.8 A 8.6 A 8.6 A 8.6 A 8.6 B 8.7 A 8.6 B 8.1 A 8.1 A 8.1 A 8.1 A 8.6 B 8.1 A 8.1 A 8.1 A 8.6 B 8.7		NB	8.1	Α	8.1	А	10.3	В	9.5	А		
E Street SE at 6 th Street SE SB	OL	SB	8.1	Α			8.8	Α	1			
at 6 th Street NB 12.6 B SE NB 12.6 B SB 11.7 B 11.0 B D Street SE at 6 th Street WB 8.5 A A 11.4 B 8.5 A B 10.8 B		EB	8.7	Α			8.6					
NB 12.6 B 11.7 B 11.0 B 10.4 B		WB	8.5	Α	14.7	_	8.1	Α	104	C		
SB EB 8.9 A D Street SE at 6 th Street WB 8.5 A AB AB AB AB AB<		NB	12.6		11./	В	11.0		10.4	В		
D Street SE		SB										
at 6 th Street NB 43.2 B 11.4 B 6.1 A 10.8 B	D Street SE											
		WB	8.5	Α	11.4	11.4 B	_	8.1	Α	10.8	В	
~-		NB	12.3	В			B	11.4	В			
SB SB	52	SB										

Gray shading indicates approach does not exist, purple shading indicates that analysis of this intersection configuration is not possible per HCM procedures. The HCM procedures do not calculate an overall LOS for two-way stop controlled intersections.

CONSTRUCTION AND ULTIMATE CONDITIONS TRAFFIC ANALYSIS

3.1 RECONSTRUCTION OF THE TUNNEL

Currently, there are four alternatives for the reconstruction of the tunnel:

- 1. **No-Build Alternative (Alternative 1):** The tunnel would not be rebuilt under this alternative. However, the railroad would continue to operate trains through the tunnel and at some point, emergency or unplanned major repairs or rehabilitation could be required to this critical, aging infrastructure that might prove equally or even more disruptive to the community than the Build Alternatives.
- 2. Alternative 2: This alternative involves rebuilding the existing Virginia Avenue Tunnel. It would be rebuilt with two tracks and enough vertical clearance to accommodate double-stack intermodal container freight trains. It would be in generally the same location, except aligned approximately seven feet to the south of the existing tunnel center line. It would be rebuilt using protected open trench construction methods. During construction, freight trains would be temporarily routed through a protected open trench outside the existing tunnel (runaround track). The runaround track would be to the south of the existing tunnel. It would be parallel to the existing tunnel and would be below street level. Safety measures such as securing fencing would be used to prevent pedestrians and cyclists from accessing the runaround track.
- 3. Alternative 3: This alternative involves replacing the existing Virginia Avenue Tunnel with two new permanent tunnels constructed sequentially. Each new tunnel would have a single track with enough vertical clearance to allow double-stack intermodal container freight trains. A new parallel south side tunnel would be built first as trains continue operating in the existing Virginia Avenue Tunnel. After the south side tunnel is completed, train operations would switch over to the new tunnel and the existing Virginia Avenue Tunnel would be demolished and rebuilt. With the exception of operating in a protected open trench for approximately 230 feet immediately east of the 2nd Street portal (within the Virginia Avenue SE segment between 2nd and 3rd Streets SE), trains would operate in enclosed tunnels throughout construction under Alternative 3. Throughout most of the length, the two tunnels would be separated by a center wall. This center wall would be the new centerline of the two tunnels, and it would be aligned approximately 25 feet south of the existing tunnel centerline, between 2nd and 9th Streets SE. Due to new columns associated with the rebuilt 11th Street Bridge, the tunnels would be separated on the east end resulting in two single-track openings at the east portal.
- 4. **Alternative 4**: This alternative would result in a new tunnel with a center partition wall separating two permanent single tracks. The new partitioned tunnel would have

enough vertical clearance to allow double-stack intermodal container freight trains. It would be aligned approximately 17 feet south of the existing tunnel's centerline. The new partitioned tunnel would be built using protected open trench construction methods. Safety measures such as secure fencing would be used to prevent pedestrians and bikers from accessing the protected open trench. The rebuild would occur 'online' meaning that during the period of construction, the protected open trench would accommodate both construction activities and train operations. Maintaining safe and reliable temporary train operations is a more complicated endeavor under Alternative 4 than under the other two Build Alternatives because of the online rebuild approach.

A draft schedule has been prepared for each of the three build alternatives above, as presented in **Table 3-1**. For each of these alternatives, work will begin on the new south track first; once completed, train traffic will be diverted onto the newly constructed track. At that time, work will demolish the existing track and the new north track will be constructed in its place. After the north track is finished and the tunnel is completed, Virginia Avenue SE roadway and other disturbed areas will be restored. Construction documents refer to work on the south track as Phase 1 and the north track as Phase 2.

Table 3-1: Construction Phasing for the Three Alternatives

Alternative	South Track Start	North Track Start	Estimated Completion
Alternative 2		Q3 2014	Q4 2016
Alternative 3	Q3 2013	Q2 2015	Q4 2016
Alternative 4		Q1 2016	Q1 2018

Note: Alternative 1 is the No-Build Alternative. Schedule is as of July 30, 2012 and is subject to change.

3.2 CONSTRUCTION PHASES AND ULTIMATE CONFIGURATION

Preliminary construction sequencing and phasing plans indicate several short-term detours, along with three longer phases of construction that would require detours over extended periods of time. Because the short-term detours would last less than two weeks each, traffic analysis for these were not performed. Detailed analysis was performed to ascertain the effects of the three longer phases of construction. In addition, consideration and analysis of the effects of the 11th Street Bridge project and the M Street Diversion Sewer project (described in **Section 3.2.1**), including closures of ramps, was performed for this analysis.

During the short-term detours of two weeks or less, pedestrians may need to be detoured to other north-south roadways in order to construct the temporary decking. In the long-term phases, the pedestrian movements crossing Virginia Avenue SE will be maintained as the temporary decking will include a sidewalk. Following construction (Ultimate Conditions), the area will be restored, including full pedestrian access.

With the potential project roadway closures, WMATA bus routes will not be affected as no routes currently use Virginia Avenue SE within the study area. When the temporary decking is constructed for 8th Street SE, minimal impacts would occur to bus traffic as the lanes on 8th Street SE are temporary reduced in width to allow for the construction of the temporary decking.

3.2.1 OTHER PROJECTS IN AREA

Two major projects occur within the study area: the 11th Street Bridge Project and the M Street Diversion Sewer Project. The former is the reconstruction of: the 11th Street Bridge over the Anacostia River; its tie-in to Interstate 295, Anacostia Freeway, and Martin Luther King Jr. Avenue to the south; and its tie-in to the Southeast Freeway and M and 12th Streets SE to the north. The M Street Diversion Sewer Project is reconstructing the sewer line between 7th and Water Streets SE and constructing the tie-in into a new sewer line. This project requires closing one travel lane in each direction on M Street SE between 7th and 11th Streets SE. The schedule of key maintenance of traffic (MOT) stages of both projects are described in **Table 3-2**.

Table 3-2: Stages of Other Projects within the Study Area

Project Stage	Duration					
11 th Street Bridge	(as of June 4, 2012)					
8 th Street Ramp (Ramp E-2)	Existing ramp closes January 2013, new ramp opens to traffic May 2014, when Ramp A-2 opens					
9 th Street Ramp	Close permanently January 2013					
New connector from the Southeast Freeway to 11 th Street (Ramp D-4)	Opens to traffic in summer of 2014					
New connector to Southeast Boulevard	Opens to traffic in summer 2014					
11 th Street reconstruction over the Southeast Freeway	January 2013 to March 2015, note that one lane in each direction maintained at all times.					
M Street Sewer Replacement (as of May 11, 2012						
Project closes a lane in each direction from just west of 7th Street to east of 9th Street, detailed schedule is not yet						

Project closes a lane in each direction from just west of 7st Street to east of 9st Street, detailed schedule is not yet defined, but project duration is Summer 2012 to Summer 2014. During this time, there will be a series of lane shifts as the new sewer line and diversion structures are constructed.

Note: Project schedules as listed above are subject to revisions as those project move forward.

3.2.2 SHORT-TERM DETOURS

Short-term temporary detours would occur in short duration on 3rd, 5th, and 7th Streets SE for the construction of the temporary bridge decking over the work zone of the temporary detouring train track (Alternative 2 only), as well as the new tunnels and the existing tunnel that will be demolished. The short-term detours will occur before Phase 1A begins (as described in Section **3.2.3**). The temporary decking for 4th, 8th, and 9th Streets SE will be constructed one at a time so that only one of these roadways would be affected at any given time. The temporary decking along 11th Street SE will be constructed in two stages, with final sequencing to be determined in coordination with the 11th Street Bridge project. Constructing the decking in two stages will allow 11th Street SE to remain open, though it will be reduced to one lane in each direction (i.e., total cross-section reduced from four to two lanes). Once the temporary decking is completed, this portion of 11th Street SE will be opened to four lanes of traffic. Note that the 11th Street Bridge project, a separate project being constructed by others, will include in two stages: demolishing the bridge located just north of the temporary decking over the Southeast Freeway, and building a new structure. During that time, that project will keep two lanes of traffic open on 11th Street SE during the AM and PM peak periods. Once that project is completed, there will be four lanes of traffic on 11th Street SE.

3.2.3 PHASE 1A

MOT Phase 1A is currently proposed to start in the third quarter of 2013 and last until the midsecond quarter of 2014; final timing will depend on the timeline of the 11th Street Bridge project. At this time, it is understood that the 8th and 9th Street SE ramps would be closed prior to the start of Phase 1A. Those closures would shift traffic from 8th Street SE at Virginia Avenue SE down to M Street SE so that traffic can access the ramp to the outbound bridge at 11th Street SE. When the 8th Street SE ramp opens (Ramp E-2 per 11th Street Bridge MOT), there will be further changes in traffic patterns in the study area.

The currently proposed schedule identifies the following actions as occurring during Phase 1A. The actions are also applicable to latter phases (Phase 1B and Phase 2) unless described differently in subsequent sections.

- Virginia Avenue SE from 2nd to 5th Streets SE and from 8th to 9th Streets SE will be closed; traffic on these roads would divert to the parallel K and L Streets SE.
- L Street SE between 8th and 9th will be converted to two-way operations.
- Virginia Avenue SE intersections at 2nd and 5th Streets SE are completely closed.
- Virginia Avenue SE from the Southeast Freeway off-ramp to 8th Street SE is reduced to
 one travel lane with one emergency vehicle drop lane. The signal timing at the ramp
 termini would be modified to retain the pedestrian interval crossing Virginia Avenue
 SE.
- 3rd, 4th, 5th, 7th, and 8th Streets SE remain open to northbound/southbound traffic.
- Existing pedestrian movements along 3rd, 4th, 5th/6th, 7th, and 8th Streets SE are retained as the temporary decking will include a walkway.
- As no WMATA buses travel on the roadways that will be closed for the construction of the temporary decking, there are no impacts to transit.

Phase 1A is applicable to Alternative 2 and 3. Because Alternative 4 requires complete closure of Virginia Avenue SE (the tunnel roof is demolished in this phase), Phase 1A is not applicable.

3.2.4 PHASE 1B

MOT Phase 1B is similar to Phase 1A, except that the 8th Street SE ramp will be opened to traffic. In Phase 1B, traffic that had to detour to M Street SE and 11th Street SE due to the 11th Street Bridge project closing the 8th Street SE ramp, can now resume their normal traffic pattern and use the new Ramp E-2. This will reduce traffic volumes on M Street SE compared to Phase 1A.

Alternative 2 and Alternative 3 have different completion dates of Phase 1: Alternative 2 in the third quarter of 2014 and Alternative 3 in the second quarter of 2015. The difference in traffic between the Phase 1 and Phase 2 is that Ramp D-4 opens after Alternative 2 Phase 1B finishes. That ramp will provide direct access for the Southeast Freeway to 11th Street SE; prior to this point, traffic destined to 11th Street SE would exit at the off-ramp to Virginia Avenue SE and travel along Virginia Avenue SE to 8th Street SE, M Street SE, and 11th Street SE. This pattern would lower volumes along Virginia Avenue SE and 8th and M Streets SE as compared to Phase

1A. For Alternative 3, the traffic analysis assumed that Ramp D-4 will not have opened, thereby resulting in a worst-case analysis scenario. This means that Phase 1A and 1B are identical for Alternative 2 and 3. Because Alternative 4 requires complete closure of Virginia Avenue SE, Phase 1B is not applicable.

3.2.5 PHASE 2

For MOT Phase 2, Virginia Avenue SE on the south side of the Southeast Freeway is completely closed. Phase 2 will begin upon the completion of Phase 1B from Alternative 2 and 3 (2014 Quarter 3 and 2015 Quarter 2 respectively). However, due to the construction methods proposed for Alternative 4, Virginia Avenue SE will be complete closed throughout the tunnel reconstruction. The tunnel roof and south wall will be demolished prior to construction of the south track. During this phase:

- Virginia Avenue SE on the north side of the Southeast Freeway would be converted to two-way operations from 6th to 8th Streets SE. The westbound movement would be reduced to one lane, while the eastbound movement would be two lanes from 6th Street SE to 7th Street SE, then one lane to 8th Street SE. The following describes the geometrics for traffic coming off the ramp, after passing under the freeway:
 - Destined southbound, traffic would turn right onto Virginia Avenue SE (north side of the freeway), then turn right at either 7th or 8th Streets SE to head southbound.
 - The existing eastbound Virginia Avenue SE movements that turn left onto 7th or 8th Streets SE would continue north on 6th Street SE during this phase. The analysis carried all diverted traffic on 6th Street SE from Virginia Avenue SE to D Street SE to gauge the worst-case scenario for this roadway. Because of this assignment, volumes on 7th and 8th Streets SE would decrease. In reality, some of the traffic would turn onto east-west roadways (G, F, and D Streets SE, or North Carolina Avenue SE) to reach their destinations, so the most realistic scenario would be represented by conditions somewhere between the No-Build scenario and Phase 2 scenario. Testing the traffic patterns in this manner additionally allows for a determination as to whether temporary measures are needed along 6th Street SE to accommodate the worst-case traffic diversions.
 - Along eastbound Virginia Avenue SE where two-way operation would be implemented, no left turns were permitted at 7th or 8th Streets SE. It was assumed that southbound 7th Street SE at Virginia Avenue SE (north side of the freeway) would not be permitted to turn left (same as for existing conditions).

3.2.6 ULTIMATE (POST-CONSTRUCTION) CONDITIONS

Once the tunnel is reconstructed, the temporary rail track will be demolished and Virginia Avenue SE (south side of the freeway) will be rebuilt. Based on DDOT input, several proposed changes to Virginia Avenue SE to enhance the urban environment and traffic operations were analyzed:

- The intersections of Virginia Avenue SE at 5th Street SE and off-ramp/6th Street SE would be combined into a single intersection with a 3-phase traffic signal. This configuration would look similar to that of the southbound South Capitol Street at the ramp from M Street SE and N Street SE.
- The existing one-way operation of Virginia Avenue SE from 8th to 9th Streets SE would be converted to two-way operations.
- The block of 4th Street SE from Virginia Avenue SE to I Street SE, on the south side of the Southeast Freeway, would be converted to two-way operations. This would allow for access from the development bounded by Virginia Avenue SE, 4th Street SE, 5th Street SE, and K Street. Under the existing conditions, a driveway connects to I Street SE, just west of where I Street SE terminates at eastbound Virginia Avenue SE. Converting the above-described section of 4th Street SE to two-way operations maintains that connection.
- Operational testing will be done to determine whether the number of lanes on Virginia Avenue SE could be reduced as follows:
 - Reduce between 4th to 5th Streets SE as one-lane;
 - Retain the off-ramp through-only lane and a shared through-left lane configuration; and
 - Reduce Virginia Avenue SE to two lanes from the off-ramp to 7th Street SE and to three lanes from 7th to 8th Streets SE.

3.2.7 EMERGENCY VEHICLES

Emergency vehicles will be impacted slightly by the detours put into place by this project and the adjacent 11th Street Bridge project. The M Street Diversion Sewer project will not impact emergency vehicle routing as at least two lanes are maintained at all times on M Street SE. Detours will affect emergency vehicles routing by no more than several blocks, depending on actual routes selected by the responders. To maintain fire and rescue access to the various parcels, temporary access roads will be provided as currently proposed:

- The property bounded by Virginia Avenue SE and 3rd, 4th, and I Streets SE will have temporary access constructed off of 3rd and 4th Streets SE to connect to the existing fire lane in the middle of the property.
- The Cappers Senior property, bounded by Virginia Avenue SE and 5th and K Streets SE, and the existing fire lane on the east side of the property, adjacent to the Marine Barracks' athletic field, will be impacted with the closure of Virginia Avenue SE to the north. A temporary access road will be constructed along the north face of the building, to connect the existing fire lane to 5th Street SE.

Other properties in the area are not affected to the degree that additional temporary access roadways would be needed. The Transportation Management Plan (TMP) that is being prepared as part of this project will address emergency access in further detail, including necessary coordination with emergency services.

3.3 TRAFFIC ANALYSIS OF MOT PHASES

Traffic operational analysis was not performed for the short-term detours as each roadway is closed only for short periods during the construction of the temporary decking. Analysis was performed for Phases 1A, 1B, and 2. The road closures are described in the previous section. For each scenario, traffic was reassigned to other routes to reach their same destinations; volumes for each scenario are presented in **Appendix C**.

3.3.1 PHASE 1A

Traffic was detoured in this manner:

- Virginia Avenue SE traffic from 5th Street SE to the west was diverted onto K Street SE.
- Virginia Avenue SE traffic from 8th to 9th Streets SE was diverted to 8th Street SE to turn onto L Street SE.

The adjustments were completed to the traffic and operational analysis was performed at those intersections for which volumes changed; all other intersection LOS would remain the same as in the No-Build Alternative. For this analysis, signal timing plans were not optimized. **Table 3-3** presents the MOEs for Phase 1A; the full MOE table is presented in **Appendix D**.

Table 3-3. 2016 Phase 1A MOEs – Signalized Intersections

	AM	AM Peak Hour			Peak Ho	ur
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	11.7	0.79	В	15.8	0.70	В
South Capitol Street and I (Eye) Street SE (Right)	20.4	0.75	С	23.8	0.60	С
Ramps from freeway at South Capitol Street SB	155.4	1.02	F	48.0	0.74	D
South Capitol Street at M Street SE - SB Intersection	520.5	1.76	F	61.8	0.70	Е
South Capitol Street at M Street SE - NB Intersection	88.0	0.84	F	146.5	1.22	F
M Street SE at 1 st Street SE	57.8	0.84	Е	83.6	0.96	F
M Street SE at New Jersey Avenue SE	16.4	0.47	В	15.2	0.60	В
M Street SE at 3 rd Street SE	8.2	0.39	Α	14.6	0.59	В
M Street SE at 4 th Street SE	20.2	0.46	С	16.2	0.55	В
M Street SE at 8 th Street SE	49.7	0.82	D	151.9	1.35	F
M Street SE at 9 th Street SE	16.3	0.56	В	27.3	0.88	С
M Street SE at 11 th Street SE	24.1	0.71	С	234.4	1.85	F
Virginia Avenue SE EB at 5 th Street SE		N/A			N/A	
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	31.7	0.69	С	21.8	0.64	С
Virginia Avenue SE EB at 7 th Street SE	20.3	0.76	С	35.3	0.85	D
Virginia Avenue SE EB at 8 th Street SE *		N/A			N/A	
Virginia Avenue SE ramp at 8 th Street SE *	17.6	0.52	В	40.5	0.70	D
I (Eye) Street SE at 8 th Street SE	19.1	0.52	В	20.1	0.53	С
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	8.4	0.39	Α	12.0	0.56	В
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	7.2	0.46	Α	28.3	0.37	С
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	30.3	0.47	С	22.6	0.42	С

Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	46.2	0.84	D	125.4	1.26	F
G Street SE at 8 th Street SE	9.1	0.31	Α	10.9	0.42	В
M Street SE at Isaac Hall Avenue SE	5.3	0.45	Α	17.5	0.60	В

Un-shaded cells indicate locations that changed from No-Build as traffic is diverted. Blue shading indicates no change from No-Build conditions; red shading indicates that intersection does not exist during Phase 1A.

Overall, there were six intersections in which volumes changed. Three intersections had either undesirable overall LOS E or F, or some approaches at several intersections had undesirable LOS in either both peak hours or just the PM peak hour. The off-ramp at 6th Street SE had undesirable queue lengths on the ramp. For these cases, signal timings were optimized, and results are as follows:

- At the off-ramp from the Southeast Freeway at 6th Street/Virginia Avenue SE, signal optimization reduces queue lengths from 990 and 715 feet in the AM/PM peak hours, respectively, to 675 and 510 feet. This prevents any queue spillback onto the freeway and provides better operations for the off-ramp.
- At eastbound Virginia Avenue SE at 8th Street SE, signal optimization improves the intersection delay to 33.7 seconds/vehicle and to LOS C, with no approaches at LOS E or F.
- The delay and LOS of the M/8th Streets SE intersection is undesirable in the PM peak hour; however, this is due to the M Street Diversion Sewer project reducing the number of lanes on M Street SE. Note that the LOS is also undesirable in the No-Build conditions (with two lanes on M Street SE per direction). In the AM with signal optimization, the intersection improves to a delay of 31.9 seconds/vehicle and LOS C, with no approaches at LOS E or F.
- The delay and LOS of the M/11th Streets SE intersection is undesirable in the PM peak hour; however, this is due to the ongoing construction work of the 11th Street Bridge project. Note that this intersection is also at LOS F in the No-Build conditions. Signal optimization provides marginal benefit to reducing the delay.

Based on the above, it is recommended that a modification to the signal timing plan for these locations be considered. Analysis was also performed at the study area unsignalized intersections, as presented in **Table 3-4**. Analysis indicates with the diversion of traffic, the unsignalized intersections will continue to perform at acceptable LOS.

^{*} During Phase 1A, these two intersections are combined into a single intersection. Note that during this phase, the 11th Street Bridge project has closed the on-ramp; all other movements at the combined intersection are permitted. Traffic destined to the ramp is still permissible.

Table 3-4. 2016 Phase 1A Conditions MOEs – Unsignalized intersections

Table 3-4. 20				ak Hour				ak Hour				
		by Lane	e Group	by Inter	section	by Lane	Group	by Inte	rsection			
Intersection	Lane	,			HCM	,			HCM			
Name	Group	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS			
M Street SE	EB	1.0	А			2.3	А					
at 7 th Street	WB	0.0	Α	75.3	N/A	0.0	Α	3.5	N/A			
SE	NB	N/A	N/A		, .	N/A	N/A		,			
	SB	357.3	F			37.3	Е					
Virginia	EB											
Avenue SE	WB		N	/A			1	N/A				
at 2 nd Street SE	NB											
	SB											
Virginia Ave SE at 3 rd	EB											
	WB		N.	/A				N/A				
Street SE, S of Freeway	NB		I W.A.					11/74				
Officeway	SB											
Virginia Ave	EB											
SE at 4 th	WB		N.	/A		N/A						
Street SE, S of Freeway	NB											
Of Freeway	SB											
Virginia Ave	EB	- - N/A										
SE at 9 th	WB					N/A						
Street SE	NB			•		19/74						
	SB						ı					
G Street SE	EB	7.9	Α			8.1	Α					
at 4 th Street	WB	8.4	Α	10.0	В	8.3	Α	9.8	Α			
SE	NB	N/A	N/A			N/A	N/A					
	SB	10.4	В			10.3	В					
G Street SE	EB	8.6	Α			8.6	Α					
at 6 th Street	WB	8.9	Α	12.6	В	8.8	Α	10.9	В			
SE	NB	13.6	В			11.8	В					
	SB	N/A	N/A			N/A	N/A					
G Street SE	EB	7.9	A			8.9	Α					
at 7 th Street	WB	8.3	A	8.1	Α	8.9	A	9.5	Α			
SE	NB	8.1	Α			10.3	В					
	SB	8.1	Α			8.8	Α					
E Street SE	EB	8.7	A			8.6	A					
at 6 th Street	WB	8.5	A	11.7	В	8.1	A	10.4	В			
SE	NB	12.6	В			11.0	В					
	SB	N/A	N/A			N/A	N/A					
D Street SE	EB	8.9	A			8.5	Α					
at 6 th Street	WB	8.5	A	11.4	В	8.1	A	10.8	В			
SE	NB	12.3	В	11.4	- 11.4		11.4	В	, 5.0	_		
	SB	N/A	N/A		licata lacatio	N/A	N/A					

Gray shading indicates approach does not exist. Un-shaded cells indicate locations that changed from No-Build as traffic is diverted. Blue shading indicates no change from No-Build conditions; red shading indicates that intersection does not exist during Phase 1A. The HCM procedures do not calculate an overall LOS for two-way stop controlled intersections.

3.3.2 PHASE 1B

During this phase, the 11th Street Bridge project would reopen the 8th Street SE ramp (Ramp E-2). Traffic that had diverted to 8th/M Street SE intersection to 11th Street SE to cross over the 11th Street Bridge in Phase 1A can now use this ramp. This would reduce volumes at the 8th and M Streets SE, but change the behavior of drivers at the 8th Street SE/Virginia Avenue SE/ramp intersection. Operational analysis was performed at those intersections for which volumes changed. For this analysis, signal timing plans were not optimized. **Table 3-5** presents the MOEs for Phase 1B; the full MOE table is presented in **Appendix D**.

Table 3-5. 2016 Phase 1B MOEs – Signalized Intersections

	AM Peak Hour			PM	Peak Ho	ur
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	11.7	0.79	В	15.8	0.70	В
South Capitol Street and I (Eye) Street SE (Right)	20.4	0.75	С	23.8	0.60	С
Ramps from freeway at South Capitol Street SB	155.4	1.02	F	48.0	0.74	D
South Capitol Street at M Street SE - SB Intersection	520.5	1.76	F	61.8	0.70	Е
South Capitol Street at M Street SE - NB Intersection	88.0	0.84	F	146.5	1.22	F
M Street SE at 1 st Street SE	57.8	0.84	Е	83.6	0.96	F
M Street SE at New Jersey Avenue SE	16.4	0.47	В	15.2	0.60	В
M Street SE at 3 rd Street SE	8.2	0.39	Α	14.6	0.59	В
M Street SE at 4 th Street SE	20.2	0.46	С	16.2	0.55	В
M Street SE at 8 th Street SE	23.3	0.75	С	135.0	1.16	F
M Street SE at 9 th Street SE	13.5	0.50	В	14.7	0.81	В
M Street SE at 11 th Street SE	24.1	0.71	С	238.8	1.85	F
Virginia Avenue SE EB at 5 th Street SE		N/A			N/A	
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	31.7	0.69	С	21.8	0.64	С
Virginia Avenue SE EB at 7 th Street SE	20.3	0.76	С	35.3	0.85	D
Virginia Avenue SE EB at 8 th Street SE*		N/A			N/A	
Virginia Avenue SE ramp at 8 th Street SE*	22.4	0.57	С	51.1	0.82	D
I (Eye) Street SE at 8 th Street SE	19.1	0.52	В	20.1	0.53	С
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	8.4	0.39	Α	12.0	0.56	В
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	7.2	0.46	Α	28.3	0.37	С
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	30.3	0.47	С	22.6	0.42	С
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	46.2	0.84	D	125.4	1.26	F
G Street SE at 8 th Street SE	9.1	0.31	Α	10.9	0.42	В
M Street SE at Isaac Hall Avenue SE	5.3	0.45	Α	17.5	0.60	В

Un-shaded cells indicate locations that changed from Phase 1A as traffic is diverted. Blue shading indicates no change from No-Build conditions, green shading indicates no change from Phase 1A, and red shading indicates that intersection does not exist during Phase 1B.

Overall, three intersections had either undesirable overall LOS E or F, or some approaches at several intersections have undesirable LOS in both peak hours or just the PM peak hour. The off-ramp at 6th Street SE had undesirable queue lengths on the ramp. For these cases, signal timings were optimized, and results are as follows:

- At the off-ramp from the Southeast Freeway at 6th Street/Virginia Avenue SE, signal optimization reduces queue lengths from 990 and 715 feet in the AM/PM peak hour, respectively, to 675 and 510 feet. This prevents any queue spillback onto the freeway and provides better operations for the off-ramp (same conditions as in Phase 1A).
- At eastbound Virginia Avenue SE at 8th Street SE, signal optimization improves intersection delay to 38.6 seconds/vehicle and the LOS is maintained at D, with no approaches at LOS E or F. Note that Ramp E-2 is reopened by the 11 Street Bridge project.
- The delay and LOS of the M/8th Streets SE intersection is undesirable in the PM peak hour; however, this is due to the M Street Diversion Sewer project reducing the number of lanes on M Street SE. Note that the LOS is also undesirable in the No-Build conditions (with two lanes on M Street SE per direction). In the AM with signal optimization, the intersection improves to a delay of 25.8 seconds/vehicle and LOS C, with no approaches at LOS E or F.
- The delay and LOS of the M/11th Streets SE intersection is undesirable in the PM peak hour; however, this is due to the ongoing construction work of the 11th Street Bridge project. Note that this intersection is also at LOS F in the No-Build conditions. Signal optimization provides marginal benefit to reducing the delay.

Based on this, it is recommended that a modification to the signal timing plan for these four locations be considered. As the volumes do not change at unsignalized intersections from Phase 1A to Phase 1B, no new analysis was performed (see **Table 3-4** under Phase 1A).

3.3.3 PHASE 2

During this phase, compared to the previous phases for Alternatives 2 and 3, Virginia Avenue SE (between 5th and 8th Streets SE on the south side of freeway) would be closed. Alternative 4 is different in terms of construction sequence; as that alternative's construction sequence starts west to east, portions of Virginia Avenue SE will be closed in stages. Until the tunnel reconstruction reaches 5th Street SE, Virginia Avenue SE between 5th and 8th Streets SE will remain open for traffic, but once the tunnel reconstruction reaches 5th Street SE, Virginia Avenue SE will be closed.

For Phase 2, all traffic on the off-ramp at 6th Street SE will be diverted to the intersection of westbound Virginia Avenue/6th Street SE. Virginia Avenue SE (north side of the Southeast Freeway) will be converted to two-way operations as described in the previous section. Vehicles formerly performing left turn movements at 7th or 8th Streets SE are assumed to continue as through movements at Virginia Avenue/6th Street SE. Vehicles formerly performing right turn movements at 7th or 8th Streets SE are assumed to turn right at Virginia Avenue/6th Street SE and travel eastbound to 7th or 8th Streets SE where they will make a right turn at either intersection. Note that the analysis assumes that no left turns are permitted for eastbound traffic at 7th or 8th Streets SE.

At about the location where Phase 2 changes begin, the 11th Street Bridge project has opened a new ramp (Ramp D-4) from the Southeast Freeway. This ramp will connect to 11th Street SE,

along which vehicles may travel south to reach the local bridge over the Anacostia River. This benefits Virginia Avenue SE as the current pattern for vehicles destined to the local bridge is to exit onto Virginia Avenue SE at the off-ramp at 6th Street SE, travel along Virginia Avenue SE to 8th Street SE, M Street SE, and 11th Street SE. Ramp D-4 will divert these vehicles away from Virginia Avenue SE. AM and PM peak hour counts (from this study) at intersections along the path described above were examined against counts from a previous study⁷ for the same locations. The previous study counts were performed prior to the existing travel path being implemented, so by examining the difference in counts, an approximation can be developed of vehicles that would divert to the new facility. The AM peak hour counts indicate that very little change in volumes along that path occurred, so for the purpose of the analysis, no change in volume was assumed. This would represent the worst-case scenario for the analysis. The analysis of the differences in traffic counts indicates that, for the PM peak hour, approximately 200 to 300 vehicles would divert. For purpose of the analysis, 200 vehicles were diverted since using the lower end of the range would represent the worst-case scenario for Virginia Avenue SE.

Operational analysis was performed at those intersections for which volumes changed. For this analysis, signal timing plans were not optimized. Table 3-6 presents the MOEs for Phase 2; the full MOE table is presented in **Appendix D**.

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⁷ **DRAFT** TRAFFIC ANALYSIS REPORT VIRGINIA AVENUE ROAD CLOSURE, prepared by AECOM, December 2009.

Table 3-6. 2016 Phase 2 MOEs – Signalized Intersections

	AM Peak Hour			PM	Peak Ho	ur
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	11.7	0.79	В	15.8	0.70	В
South Capitol Street and I (Eye) Street SE (Right)	20.4	0.75	С	23.8	0.60	С
Ramps from freeway at South Capitol Street SB	155.4	1.02	F	48.0	0.74	D
South Capitol Street at M Street SE - SB Intersection	520.5	1.76	F	61.8	0.70	Е
South Capitol Street at M Street SE - NB Intersection	88.0	0.84	F	146.5	1.22	F
M Street SE at 1 st Street SE	57.8	0.84	Е	83.6	0.96	F
M Street SE at New Jersey Avenue SE	16.4	0.47	В	15.2	0.60	В
M Street SE at 3 rd Street SE	8.2	0.39	Α	14.6	0.59	В
M Street SE at 4 th Street SE	20.2	0.46	С	16.2	0.55	В
M Street SE at 8 th Street SE	23.9	0.71	С	20.1	0.69	С
M Street SE at 9 th Street SE	11.4	0.42	В	17.8	0.63	В
M Street SE at 11 th Street SE	24.4	0.73	С	163.1	1.28	F
Virginia Avenue SE EB at 5 th Street SE		N/A			N/A	
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	12.9	0.4	В	12.8	0.3	В
Virginia Avenue SE EB at 7 th Street SE		N/A			N/A	
Virginia Avenue SE EB at 8 th Street SE		N/A			N/A	
Virginia Avenue SE ramp at 8 th Street SE	1.8	0.52	Α	3.1	0.50	Α
I (Eye) Street SE at 8 th Street SE	35.7	0.71	D	23.8	0.49	С
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	55.3	0.65	Е	23.3	0.72	С
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	41.1	0.96	D	25.1	0.51	С
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	30.3	0.47	С	22.6	0.42	С
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	46.2	0.84	D	125.4	1.26	F
G Street SE at 8 th Street SE	12.7	0.31	В	16.5	0.39	В
M Street SE at Isaac Hall Avenue SE	5.3	0.45	Α	17.5	0.60	В

Un-shaded cells indicate locations that changed from Phase 1 as traffic is diverted. Blue shading indicates no change from No-Build conditions and red shading indicates that intersection does not exist during Phase 2.

Overall, the operational analysis indicates that three intersections had either undesirable overall LOS E or F, or some approaches at several intersections have undesirable LOS in either or both peak hours. For these cases, signal timings were optimized, and results are as follows:

- For the two-way Virginia Avenue SE, signal optimization is needed to accommodate the eastbound Virginia Avenue SE movement at three intersections:
 - At I Street at Virginia Avenue/8th Street SE, signal optimization improves intersection delay to 16.6 seconds/vehicle and LOS to B in the AM. For PM conditions, delay/LOS improves to 17.3/B.
 - At I Street at Virginia Avenue/7th Street SE, signal optimization improves intersection delay to 9.6 seconds/vehicle and LOS to A in the AM. For PM conditions, delay/LOS improves to 21.5/C.

- At I Street at Virginia Avenue/6th Street SE, signal optimization improves intersection delay to 35.6 seconds/vehicle and maintains LOS D (note: intersection was just above the LOS C/D threshold) in the AM. For PM conditions, delay/LOS improves to 21.9/C.
- No approach would operate at LOS E or F.
- The M Street Diversion Sewer project is completed prior to the commencement of Phase 2, so M Street SE has been restored to its original state. At the intersection with 8th Street SE, no issues exist for the PM peak hour as all approaches are LOS D or better. In the AM peak hour, southbound approach is at LOS E, so signal optimization would improve the overall delay and LOS to 21.6/C with all approaches at LOS C or better.
- The 11th Street Bridge project is slated to be completed by fourth quarter 2015. The analysis for this report assumes a pre-completion configuration of M and 11th Streets SE intersection. Once that project is completed, the operations of the M and 11th Streets SE intersection would improve over the analysis presented in this section.

Analysis was also performed at the study area unsignalized intersections at which the volumes changed due to trip redistribution. **Table 3-7** presents the results of the analysis. Analysis indicates with the diversion of traffic, the unsignalized intersections will continue to perform at acceptable LOS. As indicted above, traffic on eastbound Virginia Avenue SE formerly turning left onto 7th or 8th Streets SE would be a through movement at Virginia Avenue/6th Street SE (north side), and it was assumed that this diverted traffic would be a northbound through movement at all study area intersections along 6th Street SE within the study area. This assumes the worst-case scenario for traffic volumes along these intersections. In all likelihood, traffic will begin to disperse at each intersection along 6th Street SE. The analysis shows that even with assuming all northbound traffic being diverted to northbound 6th Street SE, all study area intersections will remain at acceptable LOS, and that the northbound approaches are LOS D or better.

Table 3-7. 2016 Phase 2 Conditions MOEs – Unsignalized intersections

		AM Peak Hour				PM Peak Hour																	
		by Lane	Group	by Inter	section	by Lane	Group	by Inte	rsection														
Intersection Name	Lane Group	Delay	LOS	Delay	HCM LOS	Delay	LOS	Delay	HCM LOS														
M Street SE	EB	1.0	Α			2.3	Α																
at 7 th Street	WB	0.0	Α	75.3	N/A	0.0	Α	3.5	N/A														
SE	NB	N/A	N/A			N/A	N/A																
	SB	357.3	F			37.3	Е																
Virginia	EB																						
Avenue SE	WB		N	/A				N/A															
at 2 nd Street	NB		14				'	V / / \															
SE	SB																						
Virginia Ave	EB																						
SE at 3 rd	WB		NI	/A		N/A																	
Street SE, S	NB																						
of Freeway	SB																						
Virginia Ave	EB																						
SE at 4 th	WB	N/A				N/A																	
Street SE, S	NB		14			N/A																	
of Freeway	SB																						
	EB																						
Virginia Ave SE at 9 th	WB	N/A				N/A																	
Street SE	NB		IN	/ K		IV/A																	
	SB																						
	EB	7.9	Α			8.1	Α																
G Street SE at 4 th Street	WB	8.4	Α	10.0	В	8.3	Α	9.8	А														
SE	NB	N/A	N/A	10.0	ь	N/A	N/A	9.0	^														
	SB	10.4	В			10.3	В																
	EB	9.1	Α			9.5	Α																
G Street SE at 6 th Street	WB	9.5	Α	21.2	С	9.9	Α	26.4	D														
SE	NB	23.5	С	21.2	C	30.5	D	20.4	D														
	SB	N/A	N/A			N/A	N/A																
0.04 .05	EB	8.2	Α			9.5	Α																
G Street SE at 7 th Street	WB	8.2	Α	8.1	А	9.1	Α	9.9	Α														
SE SE	NB	7.8	Α	0.1	Α	10.7	В	3.3	Α														
	SB	8.2	Α			9.1	Α																
C 04===4 0C	EB	9.1	Α			9.3	Α																
E Street SE at 6 th Street	WB	8.9	Α	15.8	С	8.8	Α	18.4	С														
SE	NB	17.3	С	10.0		20.2	С	10.4	J														
	SB	N/A	N/A			N/A	N/A																
D 04 + 05	EB	9.3	Α			9.2	Α																
D Street SE at 6 th Street	WB	8.9	Α	15.1	15.1	15.1	15.1	15.1	15.1	15 1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	С	8.8	Α	20.0	С
SE	NB	16.6	С	10.1		21.7	С	20.0	O														
	SB	N/A	N/A			N/A	N/A	raffic is diverte															

Gray shading indicates approach does not exist. Un-shaded cells indicate locations that changed from No-Build as traffic is diverted. Blue shading indicates no change from No-Build conditions, purple shading indicates that analysis of this intersection configuration is not possible per HCM procedures, and red shading indicates that intersection does not exist during in Phase 2. The HCM procedures do not calculate an overall LOS for two-way stop controlled intersections.

3.3.4 2016 ULTIMATE CONDITIONS

The AM and PM No-Build Conditions Synchro models were used as the base for the analysis of the 2016 Ultimate Conditions. Prior to the conclusion of this project, the ramp at 8th Street SE would have been reopened to traffic by the 11th Street Bridge project, but the 9th Street SE ramp would be removed. Traffic formerly using that ramp would use M Street SE to reach the intersection of M/12th Streets SE, where vehicles would turn left to reach the new ramp onto Southeast Boulevard to reach the Sousa Bridge. When Virginia Avenue SE (south side of the freeway) is reconstructed, it is proposed that the number of lanes along Virginia Avenue SE be reduced. The initial-tested configuration is as follows:

- The intersections of Virginia Avenue SE at 5th Street SE and off-ramp/6th Street SE are combined into a single intersection (3-phase signal). This would look similar to the configuration of southbound South Capitol Street at the ramp from M Street SE and N Street SE.
- The existing one-way operation of Virginia Avenue SE from 8th to 9th Streets SE would be converted to two-way operations.
- The block of 4th Street SE from Virginia Avenue SE to I Street SE, on the south side of the freeway, would be converted to two-way operations.
- Reduce the number of lanes on Virginia Avenue SE to accommodate more parking or additional green-space as follows:
 - Reduce between 4th to 5th Streets SE as one-lane;
 - Retain the off-ramp through-only lane and a shared through-left lane configuration; and
 - Reduce Virginia Avenue SE to two lanes from the off-ramp to 7th Street SE and to three lanes from 7th to 8th Streets SE.

The MOEs were extracted from Synchro using the HCM Signals report. **Table 3-8** presents the MOEs for the 2016 Ultimate Conditions; the full MOE table is presented in **Appendix D**.

Table 3-8. 2016 Ultimate Conditions MOEs – Signalized Intersections

	AM Peak Hour			PM	Peak Ho	ur
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	11.7	0.79	В	15.8	0.70	В
South Capitol Street and I (Eye) Street SE (Right)	20.4	0.75	С	23.8	0.60	С
Ramps from freeway at South Capitol Street SB	155.4	1.02	F	48.0	0.74	D
South Capitol Street at M Street SE - SB Intersection	520.5	1.76	F	61.8	0.70	Е
South Capitol Street at M Street SE - NB Intersection	88.0	0.84	F	146.5	1.22	F
M Street SE at 1 st Street SE	57.8	0.84	Е	83.6	0.96	F
M Street SE at New Jersey Avenue SE	16.4	0.47	В	15.2	0.60	В
M Street SE at 3 rd Street SE	8.2	0.39	Α	14.6	0.59	В
M Street SE at 4 th Street SE	20.2	0.46	С	16.2	0.55	В
M Street SE at 8 th Street SE	21.3	0.70	С	20.6	0.67	С
M Street SE at 9 th Street SE	11.5	0.42	В	15.3	0.81	В
M Street SE at 11 th Street SE*	24.1	0.71	С	125.0	1.00	F
Virginia Avenue SE EB at 5 th Street SE		N/A			N/A	
SE Freeway off-ramp at 6 th Street SE/EB Virginia Avenue SE	19.4	0.59	В	18.3	0.44	В
Virginia Avenue SE EB at 7 th Street SE	6.3	0.32	Α	19.6	0.45	В
Virginia Avenue SE EB at 8 th Street SE	31.7	0.36	С	31.5	0.63	С
Virginia Avenue SE ramp at 8 th Street SE	7.9	0.40	Α	6.3	0.60	Α
I (Eye) Street SE at 8 th Street SE	19.2	0.52	В	21.9	0.54	С
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	8.4	0.39	Α	12.0	0.56	В
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	7.2	0.46	Α	28.3	0.37	С
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	30.3	0.47	С	22.6	0.42	С
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	46.2	0.84	D	125.4	1.26	F
G Street SE at 8 th Street SE	9.0	0.32	Α	10.9	0.42	В
M Street SE at Isaac Hall Avenue SE	5.3	0.45	Α	17.5	0.60	В

^{*} M/11th Street SE intersection will be reconfigured by the 11th Street Bridge project (by others); final consideration of traffic analysis lies with that project. Blue shading indicates no change from No-Build Conditions. Red shading indicates intersection does not exist, as this intersection is combined with the off-ramp at 6th Street /Virginia Avenue SE eastbound to form a new intersection.

The analysis of Virginia Avenue SE for 2016 Ultimate Conditions indicates that operations will be acceptable for the desired configuration as described above. However, operational analysis for 2040 conditions also needs to be considered to determine whether the initial-tested configuration would work. The 2040 analysis is presented in the next chapter. The analysis confirms that the configuration listed below will maintain LOS D or better for all approaches (results shown in **Table 3-9**), as followed:

- Eastbound Virginia Avenue SE approach to 6th Street SE should be a minimum of two lanes;
- Eastbound Virginia Avenue SE from 6th to 7th Streets SE, and from 7th to 8th Streets SE, should be a minimum of three lanes; and

• A new signal timing plan is needed for the intersection of Virginia Avenue SE/8th Street SE/on-ramp.

Table 3-9. 2016 Ultimate Conditions MOEs – Optimized – Signalized Intersections

	AM Peak Hour			PM Peak Hour		
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
Virginia Avenue EB at 7 th Street	5.5	0.3	Α	17.3	0.5	В
Virginia Avenue EB at 8 th Street	15.4	0.4	В	18.4	0.6	В
Virginia Avenue ramp at 8 th Street	8.0	0.4	Α	8.7	0.6	Α
M Street at 8 th Street	17.4	0.7	В	ı	1	-
M Street at 11 th Street	-	1	-	87.4	1.0	F

M Street at 8th Street SE does not require signal optimization in the PM peak hour; M Street at 11th Street SE does not require signal optimization in the AM peak hour. M/11th Street SE intersection will be reconfigured by the 11th Street Bridge project (by others); final consideration of traffic analysis lies with that project.

Since the 2016 traffic indicates that not all the lanes are needed, it is proposed that the lanes be constructed but striped out. At the time when traffic conditions warrant it, the striped out lanes would then be opened to traffic. In the interim period, the lanes could be used as parking lanes. In the Ultimate Conditions for unsignalized conditions, the volumes and geometry would not change from No-Build Conditions, with the exception of the Virginia Avenue/9th Street SE intersection, as that ramp is removed by the 11th Street Bridge project. Refer to **Table 2-6** in the No-Build section for the MOEs of unsignalized intersections.

LONG TERM TRAFFIC CONSIDERATIONS

The purpose of the 2040 analysis is to determine the ultimate configuration for Virginia Avenue SE. As described in the previous chapter, the desire is to reduce the number of lanes on Virginia Avenue SE (south side of the Southeast Freeway) to the extent possible while providing acceptable levels of services.

4.1 HORIZON YEAR FORECASTS

The horizon year for the long term analysis for Virginia Avenue SE is the year 2040. Data from the Metropolitan Washington Council of Governments (COG) model was used to develop the growth rate for the area; this model provides forecasts for 5-year increments. Based on Capitol Riverfront BID estimates, an additional 9 million square feet of development will be constructed in the area east of South Capitol Street by 2020. Using the same study area trip generation rates, the development would generate an additional 3,500 trips in the AM and 5,000 trips in the PM (combined total into and out of the study area). When added to the total study area trips into and out of the study area, a 5-year growth rate of 35 percent in the AM and 54 percent in the PM was estimated. Specific development estimates beyond 2020 have not yet been quantified by the BID for the study area. The COG model was used to determine traffic growth rate on study area roadways from 2020 to 2040 conditions. For both AM and PM, the model indicates an average growth rate for the study area roadways of approximately 10 percent, or 0.5 percent annual growth (compounded linearly). Average factors of 1.4 and 1.6 were used to project the 2015 AM and PM volumes, respectively, to 2040 conditions.

4.2 2040 NO-BUILD ANALYSIS

Traffic analysis was performed for 2040 No-Build Conditions, and 2040 volumes were entered into Synchro networks, as described in the previous section. The signal timings and intersection offsets were optimized. The No-Build Conditions analysis assumes that improvements to Virginia Avenue SE do not occur; improvements are discussed in the next section. **Table 4-1** presents the results of the analysis for signalize intersections; the full MOE table is presented in **Appendix D**.

Table 4-1. 2040 MOEs – Signalized Intersections

	AM Peak Hour			PM Peak Hour		
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
South Capitol Street and I (Eye) Street SE (Left)	61.3	1.20	Е	82.4	1.35	F
South Capitol Street and I (Eye) Street SE (Right)	100.4	1.17	F	57.3	1.09	Е
Ramps from freeway at South Capitol Street SB	395.2	1.36	F	233.5	1.19	F
South Capitol Street at M Street SE - SB Intersection	689.2	3.94	F	127.3	1.09	F
South Capitol Street at M Street SE - NB Intersection	217.6	1.12	F	311.1	1.25	F
M Street SE at 1 st Street SE	88.4	1.11	F	200.0	1.54	F
M Street SE at New Jersey Avenue SE	25.1	0.70	С	86.5	1.14	F
M Street SE at 3 rd Street SE	13.5	0.56	В	93.0	1.07	F
M Street SE at 4 th Street SE	24.2	0.76	С	28.6	0.86	С
M Street SE at 8 th Street SE	72.1	1.03	Е	97.1	1.27	F
M Street SE at 9 th Street SE	34.2	0.75	С	95.1	1.18	F
M Street SE at 11 th Street SE*	123.8	1.14	F	532.3	2.00	F
Virginia Avenue SE EB at 5 th Street SE	36.7	0.20	D	126.8	0.62	F
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	132.4	0.85	F	47.4	0.75	D
Virginia Avenue SE EB at 7 th Street SE	6.0	0.43	Α	34.3	0.78	С
Virginia Avenue SE EB at 8 th Street SE	23.2	0.61	С	70.7	0.80	Е
Virginia Avenue SE ramp at 8 th Street SE	12.6	0.51	В	44.8	0.89	D
I (Eye) Street SE at 8 th Street SE	40.8	0.92	D	138.6	1.27	F
I (Eye) Street SE at Virginia Avenue SE WB/7 th Street SE	11.8	0.62	В	102.5	1.03	F
I (Eye) Street SE and Virginia Avenue SE WB at 6 th Street SE	12.4	0.74	В	179.4	0.62	F
Virginia Avenue SE WB at 4 th Street SE north of SE Freeway	107.9	0.77	F	122.3	0.75	F
Virginia Avenue SE WB at 3 rd Street SE north of SE Freeway	313.6	2.25	F	693.6	2.94	F
G Street SE at 8 th Street SE	10.4	0.51	В	13.9	0.72	В
M Street SE at Isaac Hall Avenue SE	7.9	0.67	Α	85.1	1.10	F

^{*} This intersection is being reconfigured by the 11th Street Bridge Project. That project is responsible for the ultimate configuration of the intersection. Depending of ultimate configuration, MOEs will likely change.

The analysis shows that, assuming trip patterns mirror existing patterns; congestion is likely to occur at multiple intersections within the study area. Analysis was also performed for the study area unsignalized intersections, and the results are presented in **Table 4-2**.

Table 4-2. 2040 No-Build Conditions MOEs – Unsignalized intersections

		AM Peak Hour		PM Peak Hour					
		by Lane	Group	by Inter	section	by Lane	Group	by Inte	rsection
Intersection Name	Lane Group	Delay	LOS	Delay	HCM LOS	Delay	LOS	Delay	HCM LOS
	EB	1.8	N/A			13.1	N/A		
M Street SE	WB	0.0	N/A		N1/A	0.0	N/A		N 1/A
at 7 th Street SE	NB			2211.0	N/A			587.4	N/A
OL	SB	Err	F			Err	F		
Virginia	EB	7.0	А			6.9	Α		
Avenue SE	WB	7.8	Α	7.4	۸	7.5	Α	7.4	۸
at 2 nd Street	NB	7.1	Α	7.4	А	6.9	Α	7.1	Α
SE	SB	7.5	Α			0.0	Α		
Virginia Ave	EB	16.9	С			62.1	F		
SE at 3 rd	WB	22.0	С	6.5	N/A	34.0	D	5.0	N/A
Street SE, S	NB	0.6	Α	0.5	IN/A	0.2	Α	5.0	IN/A
of Freeway	SB	1.3	Α			3.9	Α		
Virginia Ave	EB								
SE at 4 th	WB		N	/A				N/A	
Street SE, S	NB		IN	/A			ı	N/A	
of Freeway	SB								
	EB								
Virginia Ave SE at 9 th	WB		N	/A				N/A	
Street SE *	NB		IN	/ K			'	N/ FA	
	SB								
0.01 1.05	EB	8.7	Α			9.7	Α		
G Street SE at 4 th Street	WB	9.4	Α	16.6	С	9.7	Α	20.7	С
SE	NB			10.0	C			20.7	C
	SB	18.1	С			24.0	С		
0.01 1.05	EB	9.9	Α			10.6	В		
G Street SE at 6 th Street	WB	10.9	В	51.7	F	11.8	В	35.3	Е
SE	NB	62.9	F] 51.7	<u>'</u>	45.4	E	30.0	_
	SB								
C Ctro-t CE	EB	8.8	Α			12.0	В		
G Street SE at 7 th Street	WB	9.6	Α	9.3	А	12.4	В	17.1	С
SE	NB	9.5	Α	0.0	, ,	22.8	С	''''	J
	SB	9.1	Α			12.4	В		
E Ctroot OF	EB	10.2	В			10.2	В		
E Street SE at 6 th Street	WB	10.3	В	36.1	Е	9.7	Α	24.5	С
SE	NB	43.6	Е]	_	29.1	D		J
	SB								
D 04==+ 05	EB	10.8	В			10.0	Α		
D Street SE at 6 th Street	WB	10.2	В	31.2	D	9.5	Α	29.1	D
SE	NB	38.1	Е	01.2		33.7	D	20.1	D
	SB								

 $^{^{*}}$ Intersection does not exist in 2040, due to changes as part of the 11^{th} Street Bridge project (by others).

Long term analysis shows that delays will increase at multiple intersections to undesirable LOS, caused by the growth in local and regional traffic, and not due to any particular transportation

project. Operational performance should be periodically reviewed by DDOT, and DDOT will determine whether signals should be installed to improve operational performance.

4.3 TRAFFIC ANALYSIS OF VIRGINIA AVENUE

The goal for reconstructing Virginia Avenue SE is to match the number of travel lanes to demand and to allow remaining rights-of-way to be used for other purposes such as trails, parking, etc. An initial configuration for analysis is described below. **Table 4-3** presents the MOEs for the long term conditions of Virginia Avenue; the full MOE table is presented in Appendix D. Note that only locations at which the volumes changed were analyzed.

- The intersections of Virginia Avenue SE at 5th Street SE and off-ramp/6th Street SE are combined into a single intersection (3-phase signal). This would look similar to the configuration of southbound South Capitol Street at the ramp from M Street SE and N StreetSE.
- The existing one-way operation of Virginia Avenue SE from 8th to 9th Streets SE would be converted to two-way operations. The block of 4th Street SE from Virginia Avenue SE to I Street SE, on the south side of the freeway, would be converted to two-way operations.
- The number of lanes on Virginia Avenue SE would be reduced as follows:
 - o Reduce between 4th to 5th Streets SE as one-lane;
 - Retain the off-ramp through-only lane and a shared through-left lane configuration; and
 - o Reduce Virginia Avenue SE to two lanes from the off-ramp to 7th Street SE and to three lanes from 7th to 8th Streets SE.

Table 4-3. 2040 Ultimate Conditions MOEs – Signalized Intersections

	AM Peak Hour		PM Peak Hour		ur	
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	137.3	0.97	F	55.0	0.90	Е
Virginia Avenue SE EB at 7 th Street SE	19.4	0.69	В	60.2	1.02	Е
Virginia Avenue SE EB at 8 th Street SE	17.4	0.61	В	41.9	0.78	D
Virginia Avenue SE ramp at 8 th street SE	18.1	0.66	В	37.0	0.89	D

Results of the analysis of the desired long term configuration indicate that additional lanes are needed to accommodate demand at several intersections, as follows:

- Eastbound Virginia Avenue SE approach to 6th Street SE should be two lanes;
- Eastbound Virginia Avenue SE from 6th to 7th Streets SE should be three lanes; and
- A new signal timing plan is needed for the intersection of Virginia Avenue SE/8th Street SE/on-ramp.

Table 4-4. 2040 Ultimate Conditions MOEs – Optimized – Signalized Intersections

	AM Peak Hour		PM Peak Hour		ur	
Intersection Name	Delay	V/C	LOS	Delay	V/C	LOS
SE Freeway off-ramp at 6 th Street SE/Virginia Avenue SE EB	89.1	0.9	F	30.9	0.8	С
Virginia Avenue SE EB at 7 th Street SE	7.2	0.5	Α	22.0	0.9	С
Virginia Avenue SE EB at 8 th Street SE	15.9	0.6	В	35.6	0.7	D
Virginia Avenue SE ramp at 8 th street SE	13.5	0.5	В	33.6	0.9	С

Table 4-4 above shows that, with optimized timings and additional lanes, all intersections except for the intersection of the off-ramp/Virginia Avenue SE/6th Street SE in the AM peak hour would operate at acceptable LOS. Additional improvements, such as potentially adding a third lane at the signal to provide a separate left turn lane of the off-ramp traffic, would be needed long term to improve operations to acceptable LOS. This would require a long term study to quantify the exact improvements, and preparation of necessary documentation to Federal Highway Administration (FHWA).

4.4 COMMENTARY ON ADJOINING ROADWAY OPERATIONS

Currently, 4th Street SE is one-way with a bike lane as well as a parking lane on each side of the roadway. This area is a Zone 6 parking permit area; on-street parking for others is limited to two-hours during the day, and no parking is permitted during baseball stadium events. There is the potential to convert 4th Street SE from one-way to two-way operations. South of I Street SE, 4th Street SE is 33 feet wide from face-of-curb to face-of-curb. The cross-section includes a parking lane on both sides of the roadway, a bike lane, and one southbound travel lane. If 4th Street SE was to be converted to two-way operations, the parking lane on one side of the roadway would have to be eliminated (there would also be some additional space between the travel lane and the curb). Two-way traffic with parking on both sides is not feasible within the current curb-to-curb distance.

The block of 4th Street SE from Virginia Avenue SE to I Street SE, on the south side of the freeway, would be converted to two-way operations. This would be done to allow for access from the development bounded by Virginia Avenue SE, 4th Street SE, 5th Street SE, and K Street SE. Under the existing conditions, a number of properties within this development have a driveway that connects to I Street SE, just west of where I Street SE terminates at eastbound Virginia Avenue SE. Converting the above-described section of 4th Street SE to two-way operations maintains that connection to Virginia Avenue SE. This conversion will require the parking spaces located on the east side of 4th Street SE to be removed, which amounts to four spaces. The reconstruction of eastbound Virginia Avenue SE will include new parking spaces, which would compensate for this loss.

Likewise on 4th Street SE, north of westbound Virginia Avenue SE, the roadway width is 42 feet wide. The cross-section includes a parking lane on both sides of the roadway, a bike lane, and one southbound travel lane. Two-way operations are possible in this location; however, this would require removal of one parking lane in order to maintain the on-street bike lane. The

provision of two-way traffic, a bike lane, and parking on both sides is not feasible within the current curb-to-curb distance.

For accommodating pedestrian traffic, converting the operations to two-way flow may decrease safety over the short-term as pedestrians and motorists need a period of time to become familiar with the new traffic pattern. A longer-term benefit to pedestrians in one-way operations is that the number of potential conflict points with vehicular traffic is lower than with two-way operations. This is because pedestrians do not have to watch for traffic in both directions, and potential hazards are from one side only. If 4th Street SE is converted to two-way operations, pedestrians may have a relatively higher risk for the short-term until they become fully familiar with the new traffic pattern.

For accommodating parking, the supply would decrease for area residents and their visitors. The effects of converting 4th Street SE to two-way operations will need to consider these safety and parking impacts in addition to other transportation and community concerns.

4.5 I STREET EXTENSION

DDOT is exploring options to extend I Street SE to 5th/6th Streets SE to connect directly to Virginia Avenue SE. This change is being considering as part of an overall concept for a continuously connected I Street SW/SE that would extend from Maine Avenue SW to 5th Street SE, with I Street extending onto eastbound Virginia Avenue SE8. One of the benefits of providing a continuous I Street corridor is that it provides a more fully integrated and complete grid system, including the potential for an alternative continuous east-west route to M Street SW/SE. Detailed intersection analysis was not performed as part of the review of operations, but rather a qualitative assessment of the benefits and issues associated with this change was completed. A memorandum of the study is attached in **Appendix E**.

4-6

⁸ Note that the construction of a block of I Street SE that would close the current gap between 2nd Street SE and New Jersey Avenue SE is being performed as part of redevelopment associated with a new apartment building.

5 CONCLUSIONS AND RECOMMENDATIONS

The traffic operational analysis indicates that the proposed closure of Virginia Avenue SE in three construction stages will not adversely impact traffic operations, provided that the signal timing plans are modified for key intersections in each phase. For the Ultimate Conditions (post-construction), the number of travel lanes on Virginia Avenue SE can be reduced, which would increase the number of parking spaces and/or increase the availability of green space along the roadway.

Pedestrian and bicycle connectivity may be disrupted during the short-term (one to two week) detours while temporary decking is constructed for several north-south streets crossing Virginia Avenue SE. In these cases, pedestrians and bicyclists would be detoured to other north-south routes. During the three longer term phases, full pedestrian and bicycle movements for north-south will be maintained. At the end of the project (the Ultimate Conditions), all pedestrian and bicycle movements will be restored to their original patterns.

5.1 EXISTING CONDITIONS

The Existing Conditions analysis indicates that three intersections do not operate at acceptable LOS (LOS D or better). These include the two signalized intersections are located are M Street SW/southbound off-ramp from South Capitol Street (AM peak hour), and westbound Virginia Avenue SE at 3rd Street SE/on-ramp to the Southeast Freeway. At other intersections, individual approaches may operate at undesirable LOS, but overall intersection LOS would be at D or better.

5.2 2016 NO-BUILD CONDITIONS

The analysis indicates that most study area intersections will operate at acceptable LOS, even as the area continues to redevelop. However, the number of signalized intersections operating at undesirable LOS will increase from two to five over Existing Conditions. These intersections are listed below, with the peak period where operations would be undesirable shown in parentheses.

- Ramps from the Southeast Freeway at southbound South Capitol Street (AM).
- South Capitol Street at M Street SE SB Intersection (AM and PM).
- South Capitol Street at M Street SE NB Intersection (AM and PM).
- M Street SE at 1st Street SE (AM and PM).
- M Street SE at 11th Street SE (PM). Note that the intersection is being upgraded as part of the 11th Street Bridge project, during which the configuration will change.
- Virginia Avenue SE WB at 3rd Street SE, north of the Southeast Freeway (PM).

It is important to note that this degradation of LOS for the 2016 No-Build conditions is due to continued developed in the study area, and not due to this project or other roadway projects in the area.

5.3 CONSTRUCTION PHASES

The short-term detours phase will have some impact to traffic as 3rd and 7th Streets SE will be closed temporarily to allow for construction of the temporary decking. These roadways will not be closed at the same time. Other temporary decking at 4th, 5th, 8th, 9th, and 11th Streets SE will be constructed to maintain at least one-lane in each direction. Nighttime closures may be possible, but as traffic volumes are much lower in the nighttime, the impacts are negligible.

The north-south routes will be maintained during the three long term phases, and the eastbound off-ramp will be maintained.

Concurrently to this project, the 11th Street Bridge project will permanently close the 9th Street SE ramp, and close the 8th Street SE ramp for as long as a year as the new ramp is constructed. The M Street Diversion Sewer project will reduce the number of lanes on M Street SE as the sewer lines are constructed. The analysis for this project considers those ramp closures and lane closures.

5.3.1 PHASE 1A

This phase, which closes Virginia Avenue SE from 2nd to 5th Streets SE, and from 8th to 9th Streets SE, would reduce the number of travel lanes on Virginia Avenue SE to two lanes, but no significant traffic impacts were identified. Traffic using Virginia Avenue SE to the west of 5th Street SE is diverted to K or L Streets SE. Note that the 11th Street Bridge project closes the 8th Street SE ramp (Ramp E-2) for reconstruction, and permanently closes the 9th Street SE ramp. Those actions divert traffic to the 8th and M Streets SE intersection. It is recommended that signal timing plans be modified to improve operations at impacted intersections. This is applicable to Alternatives 2 and 3.

5.3.2 PHASE 1B

For this phase, the 11th Street Bridge project would reopen the 8th Street SE ramp (Ramp E-2). Slight changes in operations would occur along 8th and M Streets SE. It is recommended that signal timing plans be modified to improve operations at impacted intersections. This is applicable to Alternatives 2 and 3.

5.3.3 Phase 2

Virginia Avenue SE on the south side of the Southeast Freeway would be closed during this stage, and all traffic from the freeway ramp would be diverted to turn left at the end of the ramp, where it would then pass under the freeway to the intersection of Virginia Avenue SE/6th Street SE (north side of the freeway). Virginia Avenue SE (north side of the freeway) would be converted to two-way operations from 6th to 8th Streets SE. Vehicles would then be able to turn right at 7th or 8th Streets SE to reach their destinations as before. Signal timing plans modifications would be needed at the three Virginia Avenue SE intersections to the north of the freeway to accommodate the two-way operations. This is applicable to Alternatives 2, 3, and 4.

5.4 ULTIMATE STATE

The traffic analysis shows that the number of travel lanes can be reduced on Virginia Avenue SE. Both 2015 and 2040 conditions were assessed. This benefits the study area as new parking spaces could be constructed and/or there could be an increase in green space. As the intersections are reconfigured, new signal timing plans should be implemented. The recommended configuration for Virginia Avenue SE:

- The intersections of Virginia Avenue SE at 5th Street SE and off-ramp/6th Street SE are combined into a single intersection (3-phase signal). From a visual appearance, this would look similar to the configuration of southbound South Capitol Street, ramp from M Street SE and N Street SE. The off-ramp retains its through-only lane and a shared through-left lane configuration.
- The existing one-way operation of Virginia Avenue SE from 8th to 9th Streets SE would be converted to two-way operations. The number of lanes on Virginia Avenue SE could be reduced:
 - o For the short-term, the number of lanes needed from 4th to 5th Street SE is one, but eventually, a left turn lane is needed at the intersection to accommodate the long term growth in the area. Therefore it is recommended to construct the left turn lane, but stripe it out until needed.
 - Reduce the number of lanes on Virginia Avenue SE to three from the off-ramp to 8th Street SE. In the interim years, the section from the off-ramp to 7th Street SE needs two lanes; during this period, the third lane could be a temporary parking lane, with the long term intention of becoming a travel lane during the peak periods.

Improvements described above would benefit pedestrians and cyclists as facilities are improved and crossing distances across Virginia Avenue SE are shortened.

5.5 NATIONALS PARK OPERATIONS

This project will have no impact to the game-day operations, as traffic operations to South Capitol Street and M Street SE near the ballpark are not impacted from the Virginia Avenue Tunnel Project. Some traffic may exit at the 6th Street SE off-ramp from the Southeast Freeway; this traffic can use the same detours as regular traffic. The short-term closures will occur during the third quarter of 2013, so some increase in travel time may be felt by the ballpark patrons if they travel in this area. As the construction progresses, the Construction Team should provide updated information of the construction activities, so that the Nationals Park executives and others can provide ballpark patrons with appropriate information.

5.6 FRIDAY EVENING PARADES, MARINE BARRACKS, 8TH AND I STREETS SE

The Evening Parade, a concert by the U.S. Marine Band, Silent Drill Team & Bugle Corps, is held Friday evening (8:00 PM) during the summer (May through August) at the Marine Barracks located at 8th and I Streets SE, Washington, DC 20390-5000. Guests can park at Maritime Plaza, where a free shuttle service is provided to and from the Barracks. The temporary decking on 7th and 8th Streets SE would not be constructed at the same time, so 8th

Street SE would be fully operational when 7th Street SE is closed for that temporary decking. When 8th Street SE is reduced in lane-width for construction of the temporary decking, 7th Street SE would be open. Slight increases in travel time may result to the Parade's guests.

5.7 TRANSIT OPERATIONS

As no WMATA buses travel on the roadways that will be closed for the construction of the temporary decking, there are no impacts to transit.

5.8 OTHER MOT ISSUES

Coordination with the 11th Street Bridge project is important as both projects close different segments of roadways at various stages. The M Street Diversion Sewer project has plans to reduce the number of lanes on M Street SE from 10th to 7th Streets SE to two lanes in each direction. The construction phases for the Virginia Avenue SE reconstruction project will not impact the 11th Street Bridge project, or the M Street Diversion Sewer project. If the Virginia Avenue Tunnel project modifies the MOT sequencing/plans due to unexpected conditions in the field, the Construction Team should inform the construction teams of the other projects. Likewise, if either of the other projects modifies its MOT sequencing/plans, they should inform the Virginia Avenue Tunnel Construction Team so this project can make necessary adjustments if needed. DDOT should ensure that any signal timing plans adjustments are incorporated as needed to ensure smooth traffic operations between the various areas under reconstruction.

AFIGURES

Figure A-1: Location of Counts within the Study Area 1 = Intersection Count Location = Classification and Speed Count

Figure A-2: Traffic Control Devices South Capitol Street ⊑ 11th Street, SE 10th Street, SE 2nd Street, SE NOT TO SCALE E Street, SE F Street, SE ─ G Street, SE Virginia Avenue, SE l Street, SW 😑 == I Street, SE Virginia Avenue, SE K Street, SW = L Street, SW = M Street, SW = ■3rd Street, SE 2nd Street, SE New Jersey Avenue, SE 5th Street, SE 4th Street, SE 10th Street, SE 11th Street, SE = Traffic Signal = Stop Sign ▼ = Yield Sign

Figure A-3: On-Street Parking and Restrictions 11th Street, SE 10th Street, SE 2nd Street, SE 3rd Street, SE 5th Street, NOT TO SCALE E Street, SE F Street, SE G Street, SE Westbound | l Street, SW 😑 == I Street, SE Virginia Avenue, SE K Street, SW = L Street, SW = M Street, SW = 2nd Street, SE New Jersey Avenue, SE 3rd Street, SE Legend: 4th Street, SE South Capitol Street 11th Street, SE Parking 2-hr; except for peak period (6-9:30am, 4-7:30pm) or at designated bus stops = Parking 2-hr; residential permit zones = Construction in progress, no on-street parking at time of observation = Block used by food trucks; signed 2-hr parking = Parking allowed, time limit not signed

Figure A-4: Nationals Ballpark Parking Lots HH GST NOT TO SCALE 295 8TH ST CAPITOL ST NEW JERSEY AVE I ST VIRGINIA AVE SOUTH K 2ND ST 4TH ST ST ST HALF ST L ST M ST M ST DOT DELAWAREAVE TINGEY ST TINGEY ST HALF ST N PLACE CAPITOL O ST SOUTH Source: http://washington.nationals.mlb.com VAT008

Figure A-5: Marked Crosswalks South Capitol Street ⊑ 11th Street, SE 10th Street, SE 2nd Street, SE 3rd Street, SE 5th Street, NOT TO SCALE E Street, SE F Street, SE G Street, SE Westbound | l Street, SW 😑 == I Street, SE Virginia Avenue, SE K Street, SW = L Street, SW = M Street, SW = 2nd Street, SE New Jersey Avenue, SE 8th Street, 3rd Street, SE South Capitol Street 4th Street, SE 10th Street, SE 11th Street, SE = Marked Crosswalk with Countdown Head = Marked Crosswalk = Construction (old crosswalk may have been temporarily removed at intersection)

Figure A-6: Bike Lanes and Bus Stops 11th Street, SE 5th Street, 10th Street, SE 2nd Street, SE 3rd Street, SE NOT TO SCALE = E Street, SE F Street, SE G Street, SE Westbound | l Street, SW 😑 == I Street, SE Virginia Avenue, SE K Street, SW = L Street, SW = M Street, SW = 2nd Street, SE New Jersey Avenue, SE 3rd Street, SE 5th Street, SE 8th Street, SE 4th Street, SE South Capitol Street 10th Street, SE 11th Street, SE 📜 = Bus Stop = Capital Bikeshare Station = On-Street Bike Lane = Designated Bike Path

Figure A-7: Bus Routes Serving the Study Area NOT TO SCALE South Carolina Avenue, SE E Street, SE F Street, SE G Street, SE Virginia Avenue, SE I Street, SE I Street, SW = Virginia Avenue, SE K Street, SW = L Street, SW = M Street, SW 11th Street, SE 4th Street, SE South Capitol Street = Circulator: Union Station – Navy Yard = A42, A46, A48, P6 = A9 = V7, V8, V9 = 90, 92, 93, Circulator: Potomac Avenue -Skyland Note: Bus Routes as of July 9, 2012

Figure A-8: Aerial view of South Capitol Street at I Street (including ramp from SW Freeway) and Snapshot of Synchro Network



Figure A-9: Aerial view of Eastbound Virginia Avenue at 8th Street (including ramp from SW Freeway) and Snapshot of Synchro Network



Appendices
B, C, and D
Not
Included

I STREET EXTENSION

Extension of I-Street – List of Benefits and Issues 2012-October-09

Background

The purpose of this memorandum is to summarize issues and potential benefits related to the possible extension of I Street SE to 5th/6th Streets SE to connect directly to Virginia Avenue, SE. DDOT is considering this change as part of an overall concept for a continuously connected I Street SW/SE that would extend from Maine Avenue SW to 5th Street SE, with I Street extending onto eastbound Virginia Avenue. [Note that the construction of a block of I Street SE that would close the current gap between 2nd Street SE and New Jersey Avenue SE is being performed as part of redevelopment associated with a new apartment building.] One of the benefits of providing a continuous I Street is that it provides a more fully integrated and complete grid system (including the potential for an alternative continuous east-west route to M Street SW/SE). Two possible ways to extend I Street were assessed as part of this effort:

- 1. Extending I Street to 5th Street as the fourth leg of the intersection, while maintaining the geometry proposed originally for the intersection, or
- 2. Extending I Street to 5th Street, and terminating Virginia Avenue at I Street (reverse of existing configuration).

This technical brief develops the pros/cons of both configurations.

1) Extending I Street to 5th Street as the fourth leg of the intersection

Pros:

- Both Virginia Avenue and I Street connect to 5th Street, thereby removing the need for vehicles to perform dog-leg maneuvers.
- More closely matches the original L'Enfant plan.

Cons:

- A four ring signal (which would be required for adding an additional leg to the
 intersection) tends to result in high delays; of particular concern is the effect of this
 additional delay on the intersection leg that serves as the off-ramp from the interstate.
 FHWA would require any modifications to the intersection to favor the offramp, such
 that the conditions on the ramp to be as good as or better than conditions in the prereconfiguration state.
 - A new signal timing plan would be needed but, as noted above, it needs to
 ensure that the offramp does not spill back onto the interstate. The off-ramp
 intersection leg currently has a significant portion of the green time (more than
 60%).
 - The pedestrian "walk" and "flash don't walk" intervals may require significant portions of the green time for adequate crossing times, thereby reducing green

time for the off-ramp. This may drive the need for a longer cycle length at this location, but such a change would impact other signals in the area because of the need to maintain a uniform cycle length for progression between signals.

- Loss of green space compared to the originally proposed configuration.
- There would be a loss of existing green space in front of the housing development between 4th and 5th if I street was extended.

A schematic of the intersection and its phasings is presented at the end of this brief for the 4-phase split ring layout.

2) Extending I Street to 5th Street, and terminating Virginia Avenue at I Street

Pros:

- A three ring signal is more likely to be sufficient at the intersection, with the west leg of Virginia Avenue terminating at I Street.
- Volumes are minimal on Virginia Avenue; as such, the impacts would be negligible to traffic.
- This option would preserve more green space than the other configuration.

Cons:

- Virginia Avenue is not continuous; thereby not matching the original L'Enfant plan.
- Although there is more green space, all of it would be on the north side of I Street, requiring people to cross the street to access the green space.
 - Note that the originally proposed configuration, which ends I Street at 4th Street, increases the green space compared to the existing configuration and this space is south of the roadway.
 - There would be a loss of existing green space in front of the housing development between 4th and 5th if I street was extended.

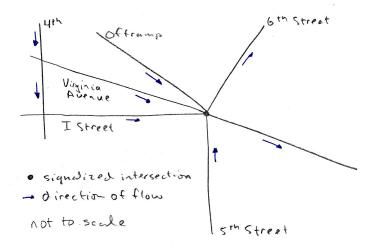
A schematic of the intersection and its phasings is presented at the end of this brief for the 3-phase split ring layout.

Summary

Extending I Street to 5th Street will have its benefits, as overall circulation in the areas south of the I-695/Southeast Freeway may be improved. There are issues and resulting consequences to the change. The tie-in of the offramp will remain the critical piece, as FHWA would require that any geometric and operational changes at the intersection to favor the offramp traffic so to prevent queue spillback onto the freeway. The list of issues contained in this brief should be considered in moving the concept of extending I Street forward. It is important to note that detailed traffic analysis has not yet been completed.

Potential roadway configurations and signal phasing

4-phase split ring - assumes both Virginia Avenue and I Street connect to 5th.



Phasing for 4-phase split ring

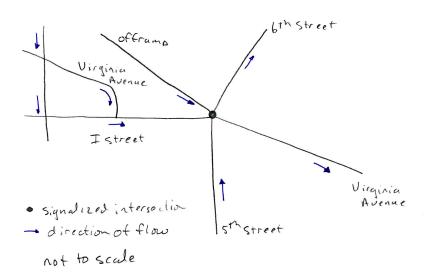
1) Offramp phase (2) Virginia Avenue Phase (3) I street phase

9 5th Street phase

- move ment

- approach under red phase

3-phase split ring
- assumes Virginia Avenue
to end at I street



Phasing for 3-phase split ring

(off-ramp phase

1 I Street phase

1 5th Street phase

1

- movement
- approach under red phase

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Virginia Avenue Tunnel Reconstruction Project Traffic Operational Analysis Report, September 2013 ERRATA SHEET – April 2014

The *Traffic Operational Analysis Report* in support of the Virginia Avenue Tunnel Reconstruction Project in Washington, DC was prepared in September 2013. The following table identifies errata from the September 2013 report and associated replacement text.

Location (Modification)	Original Text	Replacement Text
Page 1-1, 2 nd Paragraph, 1 st Sentence (Add 5 th Street SE to sentence)	During the proposed closure of Virginia Avenue SE, the north-south movements along 3rd Street SE, 4th Street SE, 7th Street SE, 8th Street SE, and 11th Street SE will be maintained via temporary decking; this will maintain north-south circulation of vehicular, pedestrian, and bike traffic on these five roadways.	During the proposed closure of Virginia Avenue SE, the north-south movements along 3rd Street SE, 4th Street SE, 5th Street SE, 7th Street SE, 8th Street SE, and 11th Street SE will be maintained via temporary decking; this will maintain north-south circulation of vehicular, pedestrian, and bike traffic on these six roadways.
Page 1-1, 2 nd Paragraph, 2 nd and 3 rd Sentences (Delete 2 nd sentence; remove 5 th Street SE from 3 rd sentence.)	Temporary decking will also be constructed along 5th Street SE to maintain pedestrian and bike traffic only. The intersections of Virginia Avenue at 2nd Street SE and at 5th Street SE will be closed during the construction period.	The intersection of Virginia Avenue at 2nd Street SE will be closed during the construction period.
Page 3-3, Section 3.2.2, 3 rd Sentence (Remove 9 th Street SE from sentence.)	The temporary decking for 4th, 8th, and 9th Streets SE will be constructed one at a time so that only one of these roadways would be affected at any given time.	The temporary decking for 4th and 8th Streets SE will be constructed one at a time so that only one of these roadways would be affected at any given time.
Page 5-2, Section 5.3, 3 rd Sentence (Remove 9 th Street SE from sentence.)	Other temporary decking at 4th, 5th, 8th, 9th, and 11th Streets SE will be constructed to maintain at least one-lane in each direction.	Other temporary decking at 4th, 5th, 8th, and 11th Streets SE will be constructed to maintain at least one-lane in each direction.

Appendix K Project Newsletters Public Meeting Advertising

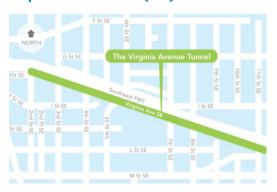
Project Newsletters



VOLUME I // ISSUE I

PROJECT UPDATES

Virginia Avenue Tunnel Project Changed to Environmental Impact Statement (EIS)



The lead federal agency,
Federal Highway Administration
(FHWA), has changed the
classification of the Virginia
Avenue Tunnel Reconstruction
project pursuant to the National
Environmental Policy Act
(NEPA) from an Environmental
Assessment (EA) process to
the Environmental Impact

Statement (EIS) process. Regardless of an EA or EIS, the NEPA process includes a rigorous evaluation of the environmental and community impacts of the proposed action.

The decision to move from an EA to an EIS is based on the need for FHWA to evaluate all aspects of the project that include interstate approvals, construction and the urban environment with unique characteristics. In this urban context, FHWA believes an EIS is the more appropriate process to satisfy NEPA.

The shift to an EIS was not triggered by any new information revealed during this process, but by FHWA's evaluation of the project scope in the context of the surrounding urban community.

Upcoming Public Meeting

On May 21, 2012 from 6pm to 8pm, FHWA and DDOT will hold another public meeting as part of the NEPA process to provide a project update on the Virginia Avenue Tunnel Reconstruction project. During this public meeting, the concepts to move forward in the EIS will be announced. Now that the meeting has been scheduled, we will alert the community through email, print advertising and direct outreach to residents and various organizations.

Throughout the NEPA process, questions and comments from the public can be submitted and regular updates on this important project will be provided. Please continue to visit http://www.virginiaavenuetunnel.com for new updates on the Virginia Avenue Tunnel.

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Steve Plano Parsons Brinckerhoff

Attn: Virginia Avenue Tunnel Project 1401 K Street, NW, Suite 701 Washington, DC 20005

UPCOMING EVENT>>

Public Meeting

Nationals Park 1150 South Capitol Street, SE Washington, DC 20003-1507

Monday, May 21, 2012 6:00pm - 8:00pm

PROJECT SCHEDULE >>

Draft EIS Fall 2012

Public Hearing Winter 2012

Final EIS Spring 2013

Record of Decision
Spring 2013

CSX IN THE COMMUNITY

CSX Officer Andrew Ford Joins Capitol Hill Community

As of fall 2011, Andrew Ford, Supervisory Special Agent of CSX, has been working closely with District law enforcement, community residents and organizations to promote safety in and around the Capitol Hill neighborhood. To better serve the community, in the near future Special Agent Ford will be stationed at a Virginia Avenue SE office location. He may be reached via e-mail at Andrew_Ford@csx.com.

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park.



A view of the east portal of the Tunnel.

Owned and maintained by CSX, the Virginia Avenue Tunnel is located in Southeast Washington, DC, beneath the eastbound lanes side of Virginia Avenue SE. By reconstructing Virginia Avenue Tunnel with a vertical height that will allow CSX to operate double-stack intermodal container freight trains, the railroad will be able to expand its capacity to transport freight in an environmentally sensitive manner. Furthermore, because the new tunnel will re-establish a second set of tracks, CSX will eliminate the chokepoint that currently delays all trains traveling through the Washington region.



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UPCOMING EVENTS & SCHEDULE >>			
Impact Assessment	Now - Fall 2012		
Public Meeting	Summer 2012		
Draft EIS	Fall 2012		
Public Hearing	Winter 2012		

PROJECT UPDATES

Record of Decision

Final EIS



Attendees begin to arrive for the May 21 public meeting.

Virginia Avenue Tunnel Public Meeting Held May 21

Spring 2013

Spring 2013

On May 21, 2012 from 6 p.m. to 8 p.m., FHWA and DDOT hosted a public meeting at Nationals Park to provide an update on the Virginia Avenue Tunnel (VAT) project.

During the public meeting, members of the project team discussed the project's shift under the National Environmental Policy Act (NEPA) from an Environmental Assessment (EA) to an Environmental Impact Statement (EIS), presented the four concepts retained for further analysis under the EIS, and answered questions from members of the community in attendance.

Materials from the public meeting, including a formal presentation, meeting transcript, public comments and project concept board displays, can be found under the Public Involvement and Project Resources sections on http://www.virginiaavenuetunnel.com.



The project team discussed the EIS shift and retained project concepts.



A moderated Q&A session was held to address community questions.

Geotechnical and Vibration Field Studies Conducted Along Virginia Avenue

The project team recently began field studies on the geotechnical soil characteristics within the project area, as well as vibration field measurements related to the ambient (existing) sound levels from each of the highway traffic and the rail noise.

The geotechnical boring study examines 29 locations along Virginia Avenue for a combination of factors including soil characteristics, presence of metals and contaminants, ground water levels and water monitoring. This information will help determine the strength of the soil which in turn determines excavation characteristics and groundwater management needs. This study began in early May and is expected to be completed in July.

In addition, a full day vibration field measurement was conducted on May 22 using seismographs installed at three different locations: near the EYA Capital Quarter development, near Marine Quarters, and outside of the northeast tunnel portal near 11th Street, SE. Vibration levels at each location were measured for seven train "pass bys," and background vibration levels without any trains present were also recorded at each site. These vibration measurement results are now being reviewed and analyzed.



The geotechnical boring team at work along Virginia Avenue.



A technician monitors a portable seismograph for the vibration study.

Four Concepts Retained for Environmental Impact Statement (EIS) Evaluation

At the May 21 public meeting, the project team discussed the four concepts retained for further analysis. As part of the NEPA process these four retained concepts are now considered "Alternatives" and have been numbered from 1 to 4.

- Alternative 1 (previously Concept 1), the No-Build, is automatically being carried forward into NEPA environmental
 review. The tunnel would not be rebuilt under this alternative; however, emergency and unplanned repairs will be
 required at some point. Existing conditions and ongoing use will require major rehabilitation or replacement of the
 tunnel in the future.
- Alternative 2 (previously Concept 2), the Temporary South Side Runaround, would temporarily route trains in an open trench below street level, south of the existing tunnel. The new tunnel would be built within the existing tunnel envelope using open trench construction.
- Alternative 3 (previously Concept 5), the Permanent Twin Tunnels, would involve building one single-track tunnel on the south side of the existing tunnel using open trench construction. The trains would then use that track while the other single track tunnel would be built within the existing tunnel alignment using open trench construction. In this concept trains would not operate through the open trench.
- Alternative 4 (previously Concept 6), the Rebuild On-line, would involve reconstructing the tunnel using open trench construction along the existing tunnel alignment. This concept would require operating freight trains within the open trench concurrent with the new tunnel construction.

Additional information about the retained concepts can be found in the May 21 public meeting presentation materials available on the **Project Resources** section of **VirginiaAvenueTunnel.com**.

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park.



A view of the east portal of the Tunnel.

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UPCOMING EVENT>>

Public Meeting

Capitol Skyline Hotel Room: Hall of States 10 | St SW, Washington, DC 20024 Thursday, September 27, 2012 6:00pm - 8:00pm

PROJECT SCHEDULE >>

Impact Assessment	Now - Fall 2012
Draft EIS	Fall 2012
Public Hearing	Winter 2012
Final EIS	Spring 2013
Record of Decision	Spring 2013

PROJECT UPDATES

Upcoming Public Meeting

FHWA and DDOT will host another public meeting on September 27 to provide an update on the Virginia Avenue Tunnel project and share information about the alternatives being evaluated in the Draft Environmental Impact Statement (EIS).

Online Resources and Information Update

The Frequently Asked Questions (FAQs) on the project website have been updated based on the comments and feedback received from the community members. Responses to FAQs about the EIS process, real estate, construction duration, and present and future freight rail operations were updated. The revised FAQs can be accessed directly at http://www.virginiaavenuetunnel.com/faq/.

The transcript from the May 2012 public meeting is also now available on the project website under the Project Resources section at http://www.virginiaavenuetunnel.com/project-resources/.

Questions and comments from the public are encouraged and can be submitted anytime throughout the NEPA study process. In addition regular project updates and announcements will continue to be provided on the project website. Please continue to visit http://www.virginiaavenuetunnel.com.



The project team discussed the EIS shift and retained project concepts at the May 21 public meeting



The project team took questions and answers from the audience on issues surrounding the project

Geotechnical and Noise Field Studies Progressing along Virginia Avenue

The project team recently completed a series of geotechnical borings. Soil and groundwater samples were collected from the borings and are currently undergoing laboratory evaluations to determine factors that may impact the project, such as soil characteristics and the presence of organic and inorganic constituents. The project team will incorporate the results of the environmental analyses in the upcoming Draft EIS.

Noise measurements were conducted over six full days between May 22 and June 22, 2012. Sound level meters were set up at various locations along Virginia Avenue SE: Capitol Quarter, Arthur Capper Senior Center, Marine Corps Recreation Facility, Virginia Avenue Park and the eastern tunnel portal. The noise measurements are being reviewed and will be used as the basis to predict future noise levels in the areas surrounding the Virginia Avenue Tunnel Project.

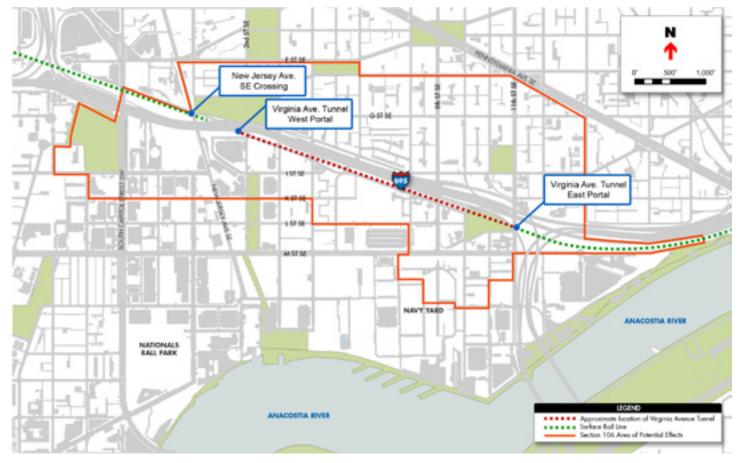


Sound level meters in operation along Virginia Avenue



Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act is running concurrently with the NEPA process. Section 106 requires that the lead federal agency responsible for a project consider the effects of its actions on historic properties. Consulting parties, which include government agencies, such as the District Historic Preservation Office, organizations such as the Capitol Hill Restoration Society and individuals with an interest in protecting historic properties, have been working with the project team to identify the Area of Potential Effects (APE). The project team is identifying the historic properties within the APE and is planning to have its next meeting with the consulting parties in September.



Preliminary Section 106 Area of Potential Effects (APE) Map

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park



A view of the east portal of the Tunnel

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UPCOMING EVENT>>

Public Meeting

Capitol Skyline Hotel Room: Hall of States 10 I ("Eye") Street, SW Washington, DC 20024 Thursday, September 27, 2012 6:00pm - 8:00pm

PROJECT SCHEDULE >>

Impact Assessment	Now - Fall 2012
Draft EIS	Fall 2012
Public Hearing	Winter 2012
Final EIS	Spring 2013
Record of Decision	Spring 2013

PROJECT UPDATES

Upcoming Public Meeting

On September 27, 2012 from 6 p.m. to 8 p.m. at The Capitol Skyline Hotel (10 I ("Eye") Street, SW, Washington, DC 20024), FHWA and DDOT will hold another public meeting as part of the NEPA process to provide a project update on the Virginia Avenue Tunnel Reconstruction project.

Free parking will be provided at the parking lot underneath the Capitol Skyline Hotel, which can be accessed at the main entrance. The nearest Metro (Navy Yard, Green Line), is located six blocks away from the Capitol Skyline Hotel. Free shuttle transportation services will be provided on a continuous loop between the Arthur Capper Senior Apartments (900 5th Street, SE), Van Ness Elementary School (1150 5th Street, SE) and the Capitol Skyline Hotel.

Public Meeting Agenda

The agenda for the meeting includes a brief project update and status summary as well as workshop breakout sessions, which are the focus of the meeting. These sessions will include a brief presentation of a particular topic with time for open discussion of each at the topic tables. The sessions are intended to help attendees understand information that will be included in the Draft Environmental Impact Statement that will be made available in a future hearing. Participants will have

the opportunity to take part in as many, or as few breakouts as they wish. The breakout format is being used at this point in the process to share new information specific to these topics, and receive input from the participants in an interactive setting for direct exchange of information that provides the opportunity to ask more questions than the traditional Q & A session. The topics include Alternatives and Construction Sequencing; Traffic and Maintenance of Traffic; Construction Practices and Techniques; "Sounds of Transit" Demonstration, a computer program that simulates noise; Vibration; and Cultural Resources/Section 106. A 30 minute Q & A session will be held after the breakouts and will be arranged and moderated similar to past public meetings.

Comments & Concerns:

Throughout the NEPA process, questions and comments from the public can be submitted and regular updates on this important project will be provided. Please continue to visit http://www.virginiaavenuetunnel.com for new updates on the Virginia Avenue Tunnel.

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park



A view of the east portal of the Tunnel

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PROJECT UPDATES



Community members gathered in the Capitol Skyline Hotel for the public meeting on September 27.



Congresswoman Eleanor Holmes Norton presented her remarks on the meeting and project to attendees.

Virginia Avenue Tunnel Public Meeting Held September 27

On September 27, 2012 from 6 p.m. to 8 p.m., FHWA and DDOT hosted a public meeting at the Capitol Skyline Hotel to provide an update on the Virginia Avenue Tunnel (VAT) project.

Congresswoman Eleanor Holmes Norton opened the meeting with brief remarks on the project. The project team then provided an overview of the project history, including its shift from an Environmental Assessment to an Environmental Impact Statement (EIS) and the four alternatives.

Following the opening presentations, attendees had the opportunity to speak directly with members of the project team at seven themed stations: alternative and construction sequencing, traffic and maintenance of traffic, construction practices and techniques, vibration, cultural resources/Section 106 and general questions. During this portion of the meeting, an audio/visual noise demonstration "Sounds of Transit" was presented.

At the end of the program, community members and the project team participated in a moderated Q&A session.

Materials from the public meeting, including a formal presentation and boards from the breakout sessions, can be found under the Public Involvement and Project Resources sections on http://www.virginiaavenuetunnel.com.



During the breakout session, members of the community and project team discussed questions about project specifics.

Comments & Concerns:

Throughout the NEPA process, questions and comments from the public can be submitted and regular updates on this important project will be provided. Please continue to visit http://www.virginiaavenuetunnel.com for new updates on the Virginia Avenue Tunnel.

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park



A view of the east portal of the Tunnel

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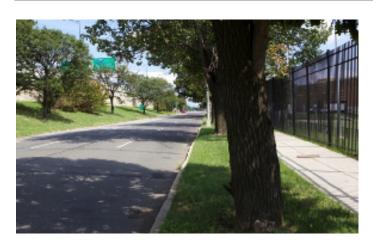
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PROJECT UPDATES



Virginia Avenue SE between 6th and 7th Streets SE, looking east.



7th Street intersection at Virginia Avenue SE: north-south crossing will remain open throughout construction

Draft Environmental Impact Statement (DEIS) Update

The Draft Environmental Impact Statement (DEIS) for the Virginia Avenue Tunnel project is expected to be released to the public in early 2013.

The DEIS will contain information on the project, its purpose and need, various alternatives considered, and the results of impact analyses of the project.

A public comment period will immediately follow notice of the DEIS availability in the Federal Register. In addition to the federal register notice and newspaper advertisement, everyone on the project email list will be informed of the DEIS release on the same day as the Federal Register notice. The DEIS will be available for download from the project website at http://www.virginiaavenuetunnel.com. Please visit the project website to be added to the email list.

A public hearing will be held once the DEIS is released for public comments. The date, time and place of the public hearing will be announced at least two weeks before the date of the hearing.

Comments & Concerns:

Throughout the NEPA process, questions and comments from the public can be submitted and regular updates on this important project will be provided. Please continue to visit http://www.virginiaavenuetunnel.com for new updates on the Virginia Avenue Tunnel.

VIRGINIA AVENUE TUNNEL BACKGROUND



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A view of the east portal of the Tunnel

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VOLUME II // ISSUE I

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(202) 681-0646

Steve Plano Parsons Brinckerhoff

Attn: Virginia Avenue Tunnel Project 1401 K Street, NW, Suite 701 Washington, DC 20005

PROJECT UPDATES



CSX's Community Office for the Virginia Avenue Tunnel project.



Located at 861 New Jersey Avenue SE, the Office serves as a base of operations for two CSX police officers.

Community Office Update

The Community Office for the Virginia Avenue Tunnel project has been completed and is open to the public from 8 a.m. to 5 p.m.

Located at 861 New Jersey Avenue SE, the office serves as a base of operations for two CSX police officers assigned to work with the community. The community office provides a physical location where residents can find additional information about the Virginia Avenue Tunnel project and speak directly with CSX personnel on issues of interest to the community.

In the near future, an office specialist will be added to the staff and the office hours will be modified to a part-time schedule that is convenient for members of the public. CSX is taking feedback from the community on the most convenient hours of operations at contact@virginiaavenuetunnel.com



Community Office Staff Profiles

Andrew "Drew" Ford is the supervisory special agent heading up the Virginia Avenue Tunnel Community Office in Washington, D.C. With 16 years in law enforcement and 12 years in community policing, Mr. Ford's role is to be a resource for residents seeking information about the project.



Andrew "Drew" Ford

Michael Nawrockyj is assigned to the Washington, D.C. Field Office as a K-9 Special Agent. His training and previous experience prepared him for his new role as a Technical Special Agent for the CSX Railroad Police. Mr. Nawrockyj enjoys working with members of the community and various civic organizations to assist and educate the public regarding railroad concerns. His duties include working with various law enforcement agencies on the local and federal level to ensure the safety of the public.



Michael Nawrockyj

Comments & Concerns:

Please continue to visit http://www.virginiaavenuetunnel.com for new updates on the Virginia Avenue Tunnel.

VIRGINIA AVENUE TUNNEL BACKGROUND



Looking west from the Virginia Avenue Tunnel portal near Garfield Park



A view of the east portal of the Tunnel

Owned and maintained by CSX, the Virginia Avenue Tunnel is located in Southeast Washington, D.C., generally beneath Virginia Avenue SE. Reconstructing the Virginia Avenue Tunnel will enable CSX to increase vertical height to enable the operation of double-stack intermodal container freight trains and re-establish a second set of tracks to eliminate the chokepoint that currently delays all trains traveling through the Washington region.

Public Meeting Advertising

September 14, 2011





PUBLIC SCOPING MEETING ginia Avenue Tunnel Environmental Assessment and Section 106 Compliance

The District Department of Transportation (DDOT) and Federal Highway Administration (FHW4), in conjunction with CSX Transportation, invite you to attend a public meeting for the Virginia Avenue Tunnel project. The purpose of this public meeting is to afford all interested persons the opportunity to provide comments regarding the project.

Wednesday, September 14, 2011, From 6:30 p.m. to 8:30 p.m. Van Ness Elementary School, 1150 6th St., S.E., Washington, DC 20003





Jdland.com

JDLand: News, Photos, and History from DC's Near Southeast/ Ballpark District/Navy Yard/Capitol Riverfront Neighborhood

About | Photo & Blog Archive | Project Directory | Live Transit Info



Pre-Leasing Underway at Yards' Foundry Lofts

(8/15) Move-ins should begin in October for the 170 units in the historic Pattern Joiner Shop, the first residential component of the Yards to be completed. (Full Story)

Also: Virginia Ave. Tunnel Meeting Sept. 14; Proposed SMDs RW

DEVELOPMENT NEWS

FEATURES & HOT TOPICS



Ruben Cos. Buys Two Former Exxon Lots on South Capitol Street

Zoning Commission Approves Office Space in Yards Lumber Shed

RETAIL NEWS + EVENTS Near Southeast's Demolished Buildings

> Raze Permit Filed for Trash Transfer Site at 880 New Jersey Avenue

First Look at WC Smith's Apartment Project

(a random before-and-after moment)



Redistricting Pt. 2: ANCs and SMDs

Nationals Park Parking Map

MEETINGS & GOV'T WHATHOT Rename Navy Yard Metro to 'Capitol Riverfront/[Curly W]'?

Complete Calendar of Events

Restaurants, Harris Teeter Coming to The Yards Georgetown Univ. Health Disparities Taking Capitol Hill Tower Retail Space

4th at K, Looking North-Northwest (see more)

Choose Another Spot

JD's Favorites

Event Photo Galleries

July 11, 2011

January 15, 2005

The Feed

Ummm, Ooops? (Unintended Extended Summer Vacation)

hasn't really been any bloggable news, and I've been feeling meh enough over the past week that trying to pull together a Tidbits post when I don't think anyone's actually reading anyway just didn't seem that enticing. Plus, now I'm in full weather geek mode, with Irene perhaps becoming more of a threat to the Metro area than it initially seemed. (If she comes up the Chesapeake Bay like one model suggested overnight, Near Southeast could certainly see some flooding at the Yards Park and other spots along the Anacostia River. II. IF. Still a big Yes, I'm still here, tweeting away (also available on Facebook!) when I come across items of note, but there

So for now, consider this an open thread. Want to tell your earthquake story? Anything else of note that you've

E facebook Conditions at Nationals Park at 1:40 PM: Partly Sunny | 74° | Wind NNE 4 mph Full Forecast | Weather Camera PUBLIC SCOPING MEETING

worldwide

APCO

The District Department of Transportation (DDOT) and Federal Highway Administration (FHVM), in oxigination with CSX Transportation, invite you to attend a public meeting or the Virginia Avenue Turnel project. The purpose of this public meeting is to afford all interested persons the opportunity to provide comments regarding the project. Virginia Avenue Tunnel Environmental Assessment and Section 106 Compliance

Wednesday, September 14, 2011 From 6:30 p.m. to 8:30 p.m. Van Ness Elementary School 1160 fth St., S.E. Washington, DC 20003

OLLOW ME ON EWI

Congrats! RT @FKlopott: I guess I'll make it official: I'm moving to Albany, NY to cover Gov. Cuomo and NY st. legislature for Bloomberg. 12:15 PM 8/29 + Reply | to Retweet | th Favorite

And that goes with the public space permit XML feed, which hasn't updated since July 16. cc @DDOTDC @octolabs 9:23 AM 8/29 か Reply I は Retweet I ☆ Favorite

 <u>@dcra</u> I know it's been a crazy week, but FYI, the approved bldg permit XML feed on data.octo.dc.gov hasn't updated since 8/23.

Mine too, just now on Cap Hill. RT @tomsherwood Hmmm comcast cable and internet suddenly go out. What's up? 10:17 PM 828 h. Repty | th Retweet | th Eavonie

9:21 AM 8/29 h Reply I to Retweet I to Favorite

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We can protect your laptop when it's not in your lap.

Barracks Row Welcomes New Pet Shop

August 29th, 2011 by Claudia Holwill - Barracks Row, H Street

To search, type and hit enter

SEARCH THIH

PUBLIC SCOPING MEETING

Virginia Avenue Tunn Environmental Assessme Section 106 Complian

The District Deg



second location on Barracks Row. Metro Mutts renovations, anticipates opening in the space at Metro Mutts, which opened at 508 H St, NE in 2009, announced today that it is opening its Owners Lee and Kelly Hartshorn and Anna is buying Pawticulars and, after a few 407 8th St, SE on October 1st.

events for pets and their owners. The Barracks Row location will follow the same then, they have expanded to offer pet-sitting, dog-walking, and they host regular philosophy of selling top quality foods and supplies, along with dog-walking and provide a neighborhood option for residents in Northeast to buy high quality pet offering foods from vendors known for using only top quality ingredients. Since supplies. The store opened around the same time as it was discovered some pet foods from China were contaminated. The store initially built its reputation on Lappas-Collins are Capitol Hill residents and longtime friends. They partnered to open the H Street Metro Mutts in order to

Wednesday, September 14, 2011 From 6:30 p.m. to 8:30 p.m. Van Ness Elementary School 1150 5th St., S.E. Washington, DC 20003

opportunity to provide comm regarding the project.

Transportation (DOD) and Feder Highway Administration (HWA), is conjunction with CSX Transportation with cyan attend a public meetin for the Virginia Avenue Tunnel project the Virginia Avenue Tunnel project to purpose of this public meetin is to afford all interested persons it.



RECENT COMMENTS

- Anonymous on Q&A Round Two: Office Hours with CHAMPS
- Jennifer Odom on Q&A Round Two: Office Hours with CHAMPS
- Anonymous on Bedrooms and Buyers on Capitol Hill

ARCHIVES

Washington Post Express



APCO



PUBLIC

SCOPING MEETING

Virginia Avenue Tunnel Environmental Assessment and Section 106 Compliance

The District Department of Transportation (DDOT) and Federal Highway Administration (EHWA), in conjunction with CSX Transportation, invite you to attend a public meeting for the Virginia Avenue Virginia Avenue of this public meeting for the purpose of this public afford all interested experiently to afford all interested comments for afford all interested comments fregarding the provide comments regarding the project.

DC Rider

Wednesday, September 14, 2011

Van Ness Elementary School 1150 5th St., S.E. Washington, DC 20003 From 6:30 p.m. to 8:30 p.m.

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Weekend Review

Informed. Get

G TOKYO
Japan PM Quits His Post

in a widety expected move Friday, Japanese Prime Minister Nanto Kan announced his resignation after almost 15 months in office. Monday, his perty vall choose a new leader, who will almost

certainly become Japan's next prime minister—the sixth since 2008. (AP) Get Events.

23 Dead in Attack on U.N. In Nigeria, Officials Say A car toaded with explosives crashed ABUJA, NIGERIA

sibility for the attack, IAPI C NEW DELHI

Get Talking.

Activist, 74, Ends Fast For Corruption Reform

arrassed a government plagued uption scandals. Arma Hazare, plan, encling a drame that had deep-

People wade through debris Sunday after a landfill retaining wall collapsed and sente awave of trash surging through as Manilla neigh-lochood as Typhoon Namadol roared through the Philippines. The massive storm killed at least 10 people and injured dozans.

O Typhoon Batters Manila



G "We are neighbors, we are allies, we are friends, but also, you are responsible. That is my message."

— MEXICAN PRESIDENT FELLE CALDERON, SPEANNOR TREADY MOUTHOUT THE U.S. GOVERNHENT ALDON INTERMEDIAL DINGONSHIPES AND OWN DIALESTS, MAS PARTY RESPONSIBLE FOR THE PRESIDENCY OF SPECIAL BY THURSHAY'S ARSHAKTINGN AT ACASSON INTERFER.

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PAKISTAN: DOZENS KİLLEG
IN Afghan Taliban Surge
At teast 200 Taliban fighters crossed Al-Qaeda's No. 2 Kitled In Pakistan, Officials Say

The percentage by which Argentina will raise its minimum wage, increasing it to about 5550 a menth, according to a deal spreed to by Argentine officials on Fiday in an effort to keep pose with the country's fulfation raises, µp. BUENOS AIRES, ARGENTINA 25%

express



Monday

STRONGER THAN?

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€ 81 65 €







Public Scoping Meeting Virginia Avenue Tunnel Environmental Assessment & Section 106 Compliance

The District Department of Transportation (DDOT) and Federal Highway Administration (FHWA) are starting an Environmental Assessment (EA) to assess the impacts of the proposed CSX Transportation (CSXT) Virginia Avenue Tunnel project to comply with the National Environmental Policy Act (NEPA). Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act. We invite you to attend a public meeting for this project. This public meeting, which will be conducted in an open house format, will be held on:

Wednesday, September 14, 2011 From 6:30 p.m. to 8:30 p.m. Van Ness Elementary School 1150 5th St. S.E. Washington, DC 20003

The project involves the rehabilitation of the CSX Virginia Avenue Tunnel between 2nd and 11th Streets Southeast. The proposed improvements are to address current infrastructure needs as well as community and safety concerns.

The purpose of this public meeting is to afford all interested persons the opportunity to provide comments regarding the project. Maps, displays and background information will be available for review at the meeting.

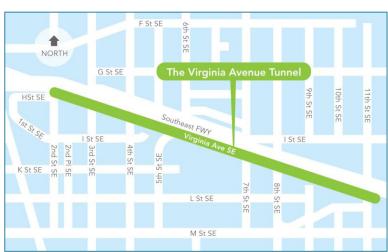
Both verbal and written comments will be taken at the public meeting. Comments may also be submitted via self-addressed/postage paid comment letters or by email to contact@virginiaavenuetunnel.com. Written comments should be submitted no later than October 14, 2011.

DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its projects, programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the Civil Rights Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act.

If you need special accommodations or language assistance services (translation or interpretation), please email contact@virginiaavenuetunnel.com or leave a message at (202) 681-0646. These services will be provided free of charge.

For more information or to submit comments, please contact:

Steve Plano
Parsons Brinckerhoff
1401 K Street NW, Suite 701
Washington, DC 20005
www.VirginiaAvenueTunnel.com



November 30, 2011







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Harris Teeter Makes Community Connection with Jan's Tutoring House

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"It was a few defined of passes was also been presented by the accent to the access of th









1969 (NEPA) process and project Federal Highway Administration posed Virginia Avenue Tunnel. This meeting will include open house displays of the proposed CSX Transportation, invite you to attend a public meeting to discuss alternatives for the proalternatives, a presentation on (FHWA), in conjunction with some details of the National Environmental Policy Act of The District Department of Transportation (DDOT) and concept alternatives, and a formal Q & A session.

Wenesday, November 30, 2011 From 6:30 p.m. to 8:30 p.m. Nationals Park 1500 South Capitol Street, 5E Washington, DC 20003-1507

confact@virginiaavenuetunnel.com or.call (202)-681-0646, For special accommodations or language assistance please email





News & Photos from
Near Southeast/Navy Yard/
Capitol Riverfront/Ballpark District
Since January, 2003

PUBLIC MEETING

Virginia Avenue Tunnel Environmental Assessmen Project Alternatives and Section 106 Compliance

mental Policy Act of 1969 (NEPA) process and project concept alternatives

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Wednesday, November 30, 2011 • From 6:30 p.m. to 8:30 p.m.
Nationals Park • 1500 South Capitol Street, SE • Washington, DC 20003-1507

Contact JD

Conditions at Nationals Park at 9:01 PM: Mostly Clear | 42" | Wind NNW 8 mph

THE LATEST

Artomatic Looking at 1015 Half, 101 M for '12 Location

DC arts happening is again looking at vacant Near Southeast buildings as [11/27] After its success in the then-empty 55 M Street in 2009, the huge possible locations for its first large-scale event in three years. (Full Story)

FEATURES & HOT TOPICS

DEVELOPMENT NEWS Started; Hurdles Remain

RETAIL NEWS + EVENTS



Bridge Photos NEW Yards/Teague

Avenue Apartment Project

(a random before-and-after moment)

Rumors of Gordon Biersch Coming to 100 M 11/30: Virginia Ave. Tunnel Scoping Meeting Sports Bar, Teeter, More Food to the Yards Park Tavern Coming to Canal Park in '12 Full Calendar of Events

Capitol Full Forecast | Weather Camera USDOT Highlighted Projects Click for More Info 880 NJ E

NCC/ Miles Glass

ending up in the trash? Are your PPC dollars

Choose Another Spot **Event Photo Galleries**

JD's Favorites

September 11, 2011

April 23, 2004

West-Southwest

(see more) Looking

3rd Place at I,





· Also hearing that they're shooting for opening the new freeway/up-river 11th Street Bridge around Dec. 16, if weather cooperates. (7:37 PM 11/30) FOLLOW ME ON EWIELE

options/concepts. Quite a range of options, some I imagine · Wow, 11 different Virginia Avenue Tunnel

The Feed

ANC Redistricting: Hearing Today, New Map from Tommy Wells

Today the council's Subcommittee on Redistricting is <u>holding a hearing (watch livel</u>) on the proposals for new ANC and single-member district boundaries. Late on Monday night, <u>proposed maps for all eight wards</u> were posted, with the Ward of maps being exactly the ones that the <u>Ward of a Task Force submitted back in September</u>. However, <u>a Twitter discussion</u> with Tommy Wells's chief of staff has indicated that the sask force maps are not what Tommy forwarded to the subcommittee, and Charles Allen was nice enough to pass along the ANC 6D portion of Tommy's map, seen below on the left, alongside the task force's recommended map (both can be clicked to enlarge):







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> Wednesday, November 30, 2011 • From 6:30 p.m. to 8:30 p.m. Nationals Park • 1500 South Capitol Street, SE • Washington, DC 20003-1507

The District Department of Thansportation (DOOT) and Federal Highway Administration (FHVMs), in conjunction with CSX Transportation, finite you to aftern a public meeting to discuss alternalives for the proposed Virginia Assume Turne. The meeting will handle open house dispays of the proposed alternatives, a presentation on some delise of the validoral Environmental Policy Act of 1950 (NEDA) process and project concept alternatives, and a firmal GMA session.

PUBLIC MEETING
Viginia Avenue Tunnel Environmental Assessment
Project Alternatives and Section 106 Compliance

SEARCH THIH

To search, type and hit enter

Pet Photo Contest Results!

November 15th, 2011 by Jon Penndorf · Barracks Row, Capitol Hill, DC, H Street

The tribe has spoken...well, tribes really. We've tallied the votes you the readers have oast, and our staff has agonized over our selections. Without further ado, here are the results of the 2011 THIH Halloween Pet Photo Contest.





Washington Post Express - November 16, 2011

BIEXPRESSILL 16.2011 | WEDNESDAY

PUBLIC MEETING

Virginia Avenue Tunnel Environmental Assessment Project Alternatives and Section 106 Compliance

permits allowing CSXT the temporary usage of air rights in the vicinity of Interstate 295/11th Street Bridges and for temporary closure of the Southeast Freeway/1295 ramp on 8th Street, SE to facilitate construction associated with to the historic resources from this project will also be assessed in compliance with the Section 106 of the National the Virginia Avenue tunnel. This request requires oversight and approval by the Federal Highway Administration proposed CSXT Virginia Ava Tunnel project to comply with the National Environmental Policy Act (NEPA). Effect CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider (FHWA), DDOT and FHWA are developing an Environmental Assessment (EA) to assess the impacts of the Historic Preservation Act.

A second public meeting will be held to discuss alternatives for this project on:

Wednesday, November 30, 2011 From 6:30 p.m. to 8:30 p.m. Nationals Park

1500 South Capitol Street, SE Washington, DC 20003-1507

presentation will start at 6:30 p.m. Verbal and written comments will be taken at the meeting. Comment forms This public meeting will include a presentation, question and answer session and open house displays. The

may also be submitted on-site, via provided self-addressed/postage paid anvelopes, or by email to contact@virginiaavenuetunnel.com. DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its projects, programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the Civil. Rights Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act. If you need special accommodations or language assistance services (translation or interpretation), please email contact@virginiaavenuetunnel.com or leave a message at (202) 681-0646. These services will be provided free of charge.

For more information please contact: Steve Plano

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A PAIR OFFER

Boehner endorses
a deficit-reducing pla
to alter the tax code ap-and-down year

Romo's Cowboy



Walmart expands its plans for D.C. to include six locations:

- 63 45 -





24 | EXPRESS | 11,22,2011 | TUESDAY

PUBLIC ALTERNATIVE MEETING

/irginia Avenue Tunnel Environmental Assessment & Section 106 Evaluation

CORRECTION: PLEASE NOTE BELOW THE UPDATED PRESENTATION START TIME OF 7:00 P.M.

permits allowing CSXT the temporary usage of air rights in the vicinity of Interstate 295/11th Street Bridges and for temporary closure of the Southeast Freeway/1295 ramp on 8th Street, SE to facilitate construction associated with proposed CSXT Virginia Ave Tunnel project to comply with the National Environmental Policy Act (NEPA). Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National the Virginia Avenue tunnel. This request requires oversight and approval by the Federal Highway Administration CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider (FHWA). DDOT and FHWA are developing an Environmental Assessment (EA) to assess the impacts of the Historic Preservation Act.

A second public meeting will be held to discuss alternatives for this project on:

Wednesday, November 30, 2011 From 6:30 p.m. to 8:30 p.m.

Nationals Park

1500 South Capitol Street, SE Washington, DC 20003-1507

The presentation will start at 7:00 p.m. Verbal and written comments will be taken at the meeting. Comment forms may also be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to This public meeting will include a presentation, question and answer session and open house displays.

projects, programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its Civil Rights Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act.

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Full of heart, 'The Muppets' proves the old gang has legs 23

Divided lawmaker give up trying to cut the national deficit 3

- 54 51 -



Virginia Avenue y Alternativas del Proyecto en Conformidad con la Sección 106 Valoración Ambiental del Túnel en

la cual será el:

Nationals Park

Nater for Elephants", Novedades

DC 20003. El Lote C esta conectado con el estadio y esta convenientemente localizado al lado de la puerta del Campo Central (Center Field). La salida del Metro (Nay Yard, Linea Verde) se encuentra a media cualita de la puerta del Campo Central Addicionalmente, transporte gratulto sofa suntinistrado entre Arthu. Capper Senifo Apartement (900 SH) Streat SB), via Ness Elementary School (1150 SH). Streat SB) y el Nationals Park. Para mayor información acerca del transporte gratulto llemar al (202) 681-0646 o visite Estacionamiento gratulto estará disponible en el Lote C, localizado en las calles First y N, SE, Washington

El proyecto esta relacionado con la rehabilitación del túnel de CSXT en Virginia Avenue entre las calles 2n y 11th SE. Las mejorias propuestas están dirigidas a satisfacer necesidades actuales de la infraestructura

ntarios estarán disponibles en la audiencia publica. Los comentarios también pueden ser nistrados por correo en los sobres prepagados o via email a contact@virginiaavenuetunnal.com. Hojas de com

beneficios de sus proyectos, programas o servícios por razones de raza, color, nacionalidad o sexo, como lo estipula el Titulo VI de Acta de Derechos Civiles de 1964 o en base a discapacidades como es previsto por el Acta de Americanos con Discapacidades

Para mayor información por favor contacte a:

AUDIENCIA PUBLICA

En seguiniento a la Audiencia Publica sostenida e II de Septientore del 2011. El Departamento de En seguiniento a del Datio De Administración Federal de Careteras (FHMS) obsettedada una sudiencia publica para discotir alternativas para el funia propuesto para CSX Transportation (CSXI) en la Avenida Virginia. Este procesco indicia la preparación de una Misocación Anthanta III Alsa en acuerdo con el Atra Nacional de Policia Ambiental (NEPA) de 1964. Le invitamos a saterir e esta audiencia publica con el Atra Nacional de Policia Ambiental (NEPA) de 1964. Le invitamos a saterir e esta audiencia publica con el Atra Nacional de 2001.

Miércoles, Noviembre 30, 2011 De 6:30 p.m. a 8:30 p.m.

1500 South Capitol Street, SE Washington, DC 20003-1507

6:30PM, una presentación formal de algunos detalles del proceso NEPA y de las alternativas del concepto del proyecto para las 7:00PM, seguidas por una sesión formal de preguntas y respuestas. Un panel de representantes de FHWA, DDOT y CSX responderan preguntas y comentarios. Los participantes deberar tarios a un tiempo audiencia publica incluirá una exposición abierta de las alternativas propuestas que iniciara a las suministrar su nombre y organización a la que pertenecen y deberan limitar su cor de dos

terror de Stephen King ihe en "Bag of Bones"

intereses de la comunidad y de la seguridad. asi como también

DDOT esta comprometido a asegurar que ninguna persona sea excluida de participar o sea negada de ntarios escritos deben ser enviados antes de Diciembre 30, 2011.

Si usted necesita condiciones especiales o servicios de syuda de lenguaje (traducción o interpretación). por favor envie un correo elestrónico a constatibilida insuemusticom o deje un mensaje en el (2020 del Adde, Estos servicios serán suministrados elin costo siguno.

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Public Alternative Meeting Virginia Avenue Tunnel Environmental Assessment Project Alternatives & Section 106 Evaluation

CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of Interstate 295/11th Street Bridges and for temporary closure of the Southeast Freeway/I295 ramp on 8th Street, SE to facilitate construction associated with the Virginia Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT and FHWA are developing an Environmental Assessment (EA) to assess the impacts of the proposed CSXT Virginia Ave Tunnel project to comply with the National Environmental Policy Act (NEPA). Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act.

As a follow-up to the public scoping meeting held on September 14, 2011, a second public meeting will be held to discuss alternatives for this project on:

Wednesday, November 30, 2011
From 6:30 p.m. to 8:30 p.m.
Nationals Park
1500 South Capitol Street, SE
Washington, DC 20003-1507

This public meeting will include a formal presentation, question and answer session, and open house displays. The formal presentation will start at 7:00 p.m.

Free parking will be provided at parking Lot C, located at First and N Streets, SE, Washington, DC 20003. Parking Lot C is attached to the park and conveniently located adjacent to Center Field Gate. The Metro exit (Navy Yard, Green Line) is located a half block away from Center Field Gate. In addition, free shuttle transportation services will be provided between the Arthur Capper Senior Apartments (900 5th Street SE), Van Ness Elementary School (1150 5th Street SE) and the Nationals Ballpark. For more information about the free shuttle service call (202) 681-0646 or visit www.virginiaavenuetunnel.com.

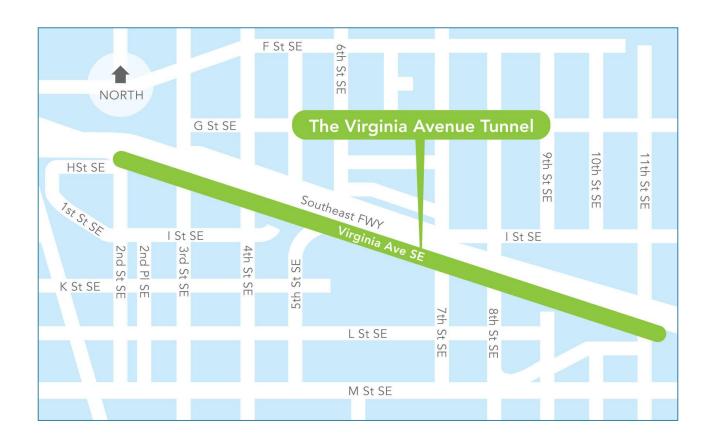
Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com. Comments from the September scoping meeting will be categorized and posted in advance of the November public meeting.

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- continued on reverse -

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For more information please contact: Steve Plano Parsons Brinckerhoff 1401 K Street NW, Suite 701 Washington, DC 20005 www.virginiaavenuetunnel.com



May 21, 2012

Washington Post Express

MONDAY | 05.07,2012 | EXPRESS | 5





[xsz]

PUBLIC ALTERNATIVE MEETING

Virginia Avenue Tunnel Environmental Impact Statement Project Alternatives & Section 106 Evaluation

and FHWA are developing an Environmental Impact Statement to assess the impacts of the proposed CSXT Virginia Ave allowing CSXT the temporary usage of air rights in the vicinity of Interstate 695/11th Street Bridges and for temporary closure of the Southeast Freeway/1695 ramp on 8th Street, SE to facilitate construction associated with the Virginia CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT Tunnel project to comply with the National Environmental Policy Act. Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act.

A third public meeting will be held to discuss alternatives for this project on:

Monday, May 21, 2012

1500 South Capitol Street, SE Washington, DC 20003-1507 From 6:00 p.m. to 8:00 p.m. Nationals Park

This public meeting will include a formal presentation, question and answer session, and open house displays. The formal presentation will begin at 6:30 p.m. Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its proje programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the Civil Right Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act.

contact@virginiaavenuetunnel.com or leave a message at (202) 681-0646. These services will be provided free of cha If you need special accommodations or language assistance services (translation or interpretation), please email

For more information please contact:

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Washington, DC 20005

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Monday



style in the playoffs 13 Caps reap benefits from changing their ON THE DEFENSIVE

An Army captain's wife sees her husband HORROR IN AFCHANISTAN die while on Skype 3



El Tiempo Latino



y la clausura temporal de la rampa del Southeast Freeway/1695 en la Calle 8 SE para facilitar la construcción relacionada con el túnel de la Avenida Virginia. Esta solicitue Distrito (DDOT) considerar permisos que hagan posible a CSXT el uso temporal de los derechos aéreos en la proximidad de los puentes de la Interestatal 695/Calle 11 recursos históricos de este proyecto también serán valorados en cumplimiento con cumplir con el Acta de Política Ambiental Nacional (NEPA). Los efectos sobre los (FHWA). DDOT y FHWA están desarrollando una Valoración Ambiental (EA) para CSX Transportation, Inc. (CSXT) ha solicitado al Departamento de Transporte del requiere la supervisión y aprobación de la Administración Federal de Carreteras valorar los impactos del proyecto del túnel de CSXT en la Avenida Virginia y así la Sección 106 del Acta de Preservación Histórica Nacional.

Una tercera audiencia publica para discutir las alternativas de este proyecto se llevara a cabo el:

De 6:00 p.m. a 8:00 p.m. Lunes, Mayo 21, 2012

1500 South Capitol Street, SE Washington, DC 20003-1507 Nationals Park

respuestas, y exposiciones abiertas. La presentación formal comenzara a las 6:30 Esta audiencia publica incluirá una presentación formal, sesión de preguntas y

Comentarios verbales y escritos serán recibidos en la audiencia. Las hojas de comer estarán disponibles en la audiencia publica y pueden ser suministrados en persona, correo en los sobres prepagados, o por email a contact@virginiaavenuetunnel.com DDOT esta comprometido a asegurar que ninguna persona sea excluida de part o sea negada de los beneficios de sus proyectos, programas o servicios por razor de raza, color, nacionalidad o sexo, como lo estipula el Titulo VI de Acta de Der Civiles de 1964 o en base a discapacidades como es previsto por el Acta de Americanos con Discapacidades.

(traducción o interpretación), por favor envíe un correo electrónico a contact@ virginiaavenuetunnel,com o deje un mensaje en el (202) 681-0646. Estos servicios Si usted necesita condiciones especiales o servicios de ayuda de lenguaje serán suministrados sin costo alguno.

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PUBLIC ALTERNATIVE MEETING

Virginis Avenue Tunnel Environmental Impact Statement Project Alternatives & Section 106 Evaluation

CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of Interstate 495/11th Street Bridges and for temporary observed the Southeast Freeway/1695 ramp on 8th Street, SE to facilitate construction associated with the Virginia Avenue Turnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT and FHWA are developing an Environmental Impact Statement to assess the impacts of the proposed CSXT Virginia Ave Turnel project to comply with the National Environmental Policy Act. Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act.

A third public meeting will be held to discuss alternatives for this project on:

Monday, May 21, 2012 From 6:00 p.m. to 8:00 p.m. Nationals Park

Nationals Park 1500 South Capitol Street, SE Washington, DC 20003-1507 This public meeting will include a formal presentation, question and answer session, and open house displays. The formal presentation will begin at 6:30 p.m.

Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com.

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If you need special accommodations or language assistance services (translation or interpretation), please email contact@virginisavenuetunnel.com or leave a message at (202) 681-0646. These services will be provided free of charge.

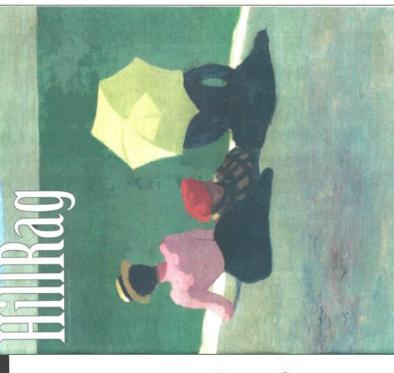
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Urban Turflooked at a new proposed 2-unit building planned for a

small vacant lot on the 1000 block of D Street NE.

Greater Greater Washington shared a video interview of Tommy

Wells with Smart Growth America.

Frozen Tropics wants to know what you think about liquor license

moratoriums.

Prince of Petworth noted that Georgetown Valet is coming to the

400 block of H Street and shared photos showing how much the

- Greater Greater Washington

 - H Street Great Street
- In Shaw JDLand
- Life in Mount Vernon Square KidFriendly DC

street has changed.

Park View, DC

Fags: Hill Buzz

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- Rebuilding Place

Hill's Eye View: From the Flickr Pool

May 14th, 2012 by Kate McFadden · Capitol Hill

- Renew Shaw
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Quadrant That Could

- The (Columbia) Heights Life Streets of Washington
- The 42 Bus
- The Georgetown
 Metropolitan





Housing Complex reported that plans for a gas station at 14th and

Maryland Avenue NE appear to be moving forward despite

residents' efforts to stop it.

The District Department of Transportation (DDDT) and Federal Highwa, Administration (FHVMA, in conjunction with CSX Transportation, invite you to aftend a public meeting to discuss alternatives for discuss alternatives for the properties of the transportation. and answer session, and open house displays. presentation, question the proposed Virginia Avenue Tunnel. This public meeting will include a formal

1500 South Capitol Street, SE Washington, DC 20003-1507 Monday, May 21, 2012 From 6:00 p.m. to 8:00 p.m. Nationals Park

o Comments

language assistance, please email or call (202) 681-0646. accommodations or For special











GCN.com (Hill Rag)



PUBLIC ALTERNATIVE MEETING ginia Avenue Tunnel Environm pact Statement Project Altema & Section 106 Evaluation

The District Department of Transportation (DDOT) and Federal Highway Administration (FHVMs), who copylancion with CSX Transportation, invite you to attend a public meeting to discuss alternatives for the proposed Virgina Avenue Tunnel. This public meeting will include a formal presentation, question and answer session, and open house displays.

Monday, May 21, 2012 • From 6:00 p.m. to 8:00 p.m. Nationals Park • 1500 South Capitel Street, SE • Washington, DC 20003-1507

For special accommodations or language assistance, please email or call (202) 681-0646.



The First Running of the Chihuahuas

The First Annual Running of the Chinuahuas sponsored by OnTap Magazine raised over \$1,500 for PAMS of Southwest, PAMS is spearheading the effort to create a Southwast Dog Park at Lansburg Park. For more information, visit MRINI-/ groups-gaogle-com/groups/sw-dog-park.

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News & Photos from Near Southeast/Navy Yard/ Capitol Riverfront/Ballpark District Since January, 2003

PUBLIC ALTERNATIVE MEETING

rtation (DDOT) and Federal Highway too with CSX Transportation, invite you a alternatives for the proposed Virginia will include a formal presentation, to attent a punit, intentity to uscuss attentionates for the greener Tunnet. This public meeting will include a formal parameter of the question and answer session, and open house displays.

Monday, May 21, 2012 • From 6:00 p.m. to 8:00 p.m. Nationals Park • 1500 South Capitol Street, SE • Washington, DC 20003-1507

For special accommodations or language assistance, please email or call (202) 681-0646.

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2nd (West) at K, Looking West-Northwest





Capitol Yards Luxury Apartments. Your Life Candy.

(a random before-and-after moment)

May 1, 2008

March 21, 2009

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The Feed

Florida Rock Update at ANC 6D: Tweaked Designs, More Retail

May 16, 2012 7:56 AM



changes to the <u>original design approved by the</u> <u>commission in 2008</u>, chief of which is to switch the first phase of the 1.1-million-square-foot 300ish-unit apartment building at 1st Street and mixed-use project from an office building to a These designs are part of the quest to make

Potomac Avenue, along with a series of other

changes that I've written about previously. (Dear heavens, don't make me write it all again.)

accompanying narration. The renderings are much more detailed and "showler" than those given to the Zoning Commission back in February, which was part of what the developers were tasked with providing in their next georound with the ZC. Here are the slides that were presented by the developers, which should be of interest even without the







Public Meeting Virginia Avenue Tunnel Environmental Assessment & Section 106 Evaluation

CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of Interstate 295/11th Street Bridges and for temporary closure of the Southeast Freeway/I295 ramp on 8th Street, SE to facilitate construction associated with the Virginia Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT and FHWA are developing an Environmental Impact Statement (EIS) to assess the impacts of the proposed CSXT Virginia Ave Tunnel project to comply with the National Environmental Policy Act (NEPA). Effect to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act.

As a follow-up to the public meetings held on September 14, 2011 and November 30, 2011, a third public meeting will be held to discuss alternatives for this project on:

Monday, May 21, 2012 From 6:00 p.m. to 8:00 p.m. Nationals Park 1500 South Capitol Street, SE Washington, DC 20003-1507

This public meeting will include a formal presentation, question and answer session, and open house displays. The formal presentation will start at 6:30 p.m.

Free parking will be provided at parking Lot C, located at First and N Streets, SE, Washington, DC 20003. Parking Lot C is attached to the park and conveniently located adjacent to Center Field Gate. The Metro exit (Navy Yard, Green Line) is located a half block away from Center Field Gate. In addition, free shuttle transportation services will be provided between the Arthur Capper Senior Apartments (900 5th Street SE), Van Ness Elementary School (1150 5th Street SE) and the Nationals Ballpark. For more information about the free shuttle service call (202) 681-0646 or visit www.virginiaavenuetunnel.com.

Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com. Comments received during and after the November 30, 2011 public meeting are available for viewing at the project website.

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- continued on reverse -

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For more information please contact: Steve Plano Parsons Brinckerhoff 1401 K Street NW, Suite 701 Washington, DC 20005 www.virginiaavenuetunnel.com



September 27, 2012

Washington Post Express (Sept. 13)

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Federal Highway Administration

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PUBLIC MEETING

Virginia Avenue Tunnel Environmental Impact Statement w& Section 106 Evaluation

construction associated with the Virginia Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT and FHWA are developing an Environmental Impact Statement (EIS) to assess the impacts of the proposed CSXT Virginia Avenue Tunnel project to comply with the National Environmental Policy Act (NEPA). Effects to the historic resources from this project will also be assessed in compliance with the Section 106 CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of the Interstate 695/11th Street Bridges and for the potential temporary closure of the Southeast Freeway/I-695 ramp on 8th Street, SE. These actions would facilitate of the National Historic Preservation Act.

A public meeting will be held for this project on:

Thursday, September 27, 2012 From 6 p.m. to 8 p.m.

E26 | EXPRESS | 09.13.2012 | THURSDAY

Washington, DC 20024

This public meeting will include a brief presentation and introductory remarks, "breakout" workshop sessions with the 6 p.m. Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public study team, and a concluding question and answer session. The introductory presentation will start very shortly after meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its projects, programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the Civil Rights Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act.

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PUBLIC MEETING

Virginia Avenue Tunnel Environmental Impact Statement w& Section 106 Evaluation

potential temporary closure of the Southeast Freeway/1-695 ramp on 8th Street, SE. These actions would facilitate construction associated with the Virginia Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA), DDOT and FHWA are developing an Environmental Impact Statement (EIS) to assess the impacts of the proposed CSKT Virginia Avenue Tunnel project to comply with the National Environmental Policy Act (NEPA), Effects to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act. CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of the Interstate 695/11th Street Bridges and for the

A public meeting will be held for this project on:

Thursday, September 27, 2012 From 6 p.m. to 8 p.m. The Capitol Skyline Hotel 10 I Street, SW Washington, DC 20024

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This public meeting will include a brief presentation and introductory remarks, "breakout" workshop sessions with the study team, and a concluding question and answer session. The introductory presentation will start very shortly after 6 p.m. Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to DDOT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its projects, programs and services on the basis of race, color, national origin or gender, as provided by Title VI of the Civil Rights Act of 1964 or on the basis of disability as provided by the Americans with Disabilities Act.

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El Tiempo (Sept. 14)



CSXT en la Avenida Virginia y así cumplir con el Acta de Politica Ambiental Nacional Federal de Carreteras (FHWA). DDOT y FHWA están desarrollando una Declaración potencial cierre de la rampa de la Calle 8 en el Southeast Freeway. Estas acciones (NEPA). Los efectos de este proyecto sobre los recursos históricos también serán CSX Transportation, Inc. (CSXT) ha solicitado al Departamento de Transporte del Distrito (DDOT) conceder permisos a CSXT para el uso temporal de los derechos aéreos en los airededores de la interestatal 695/Puentes de la Calle 11, y para el del Impacto Ambiental (EIS) para valorar los impactos del proyecto del Túnel de valorados en cumplimiento con la Sección 106 del Acta de Preservación Histórica facilitarian la construcción relacionada con el Túnel de la Avenida Virginia. Esta solicitud requiere la supervisión y aprobación por parte del la Administración Nacional. La audiencia publica para este proyecto se llevara a cabo el:

Jueves, Septiembre 27, 2012 De 6 p.m. a 8 p.m. The Capitol Skyline Hotel Washington, DC 20024 10 | Street, SW

Esta audiencia publica incluirá una breve presentación e introducción, talleres co equipo de estudio y una sesión final de preguntas y respuestas. La presentación introducción comenzara pasadas las 6 p.m. Comentarios verbales y escritos será tomados en la audiencia. Formas para comentarios también estarán disponibles padrán ser entregadas en la audiencia, enviadas en los sobres ofrecidos con sel postal pago o por email a contact@virginiaavenuetunnel.com

Capitol Skyline Hotel. Adicionalmente, transporte gratuito será ofrecido entre lo apartamentos de Arthur Capper Senior (900 5th Street, SE), la Escuela Elementa Estacionamiento gratuito será ofrecido en el estacionamiento debajo del Capito Skyline Hotel al cual se puede acceder por la entrada principal. La estación de Van Ness (1150 5th Street, SE) y el Capitol Skyline Hotel. Para mayor informació sobre el servicio de transporte gratuito comuníquese al (202) 681-0646 o visite Metro mas cercana (Navy Yard, línea Verde), esta ubicada a seis cuadras del www.virginiaavenuetunnel.com

email a contact@virginlaavenuetunnel.com o deje un mensaje en el (202) 681-06 Acta de Derechos Civiles de 1964 o en base a discapacidades como es previsto el Acta de Americanos con Discapacidades. Si usted necesita condiciones espec o servicios de ayuda de lenguaje (traducción o interpretación), por favor envie u por razones de raza, color, nacionalidad o sexo, como lo estipula el Titulo VI de DDOT esta comprometido a asegurar que ninguna persona sea excluida de participar o sea negada de los beneficios de sus proyectos, programas o servic Estos servicios serán suministrados sin costo alguno.

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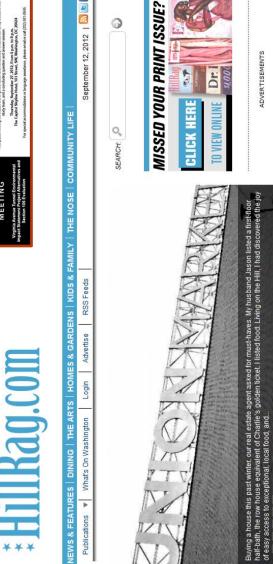
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Thursday, September 27, 2012, From 6 p.m. to 8 p.m. The Capitol Skyline Hotel, 101 Street, SW, Washington, DC 20024 PUBLIC SCOPING MEETING

September 12, 2012 | 🔊 ೬ 🖪

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Neighborhood News

ZONING COMMISSION SAYS YES TO HINE

Pest date: 0911/2012 - 9.65am
A its Sept. 10th heating, The DC Zoning Commission voted (4-0) to give preliminary approval to the Hine School Project's Planned Unit Development (PUD). Developer Stanton-EastBanch needs approval of the PUD, which would significantly up-... >>more

H STREET PLAYHOU'SE RENAMED!
Pest date: 091/02012 - 2:34pm
According to a tweet today from Julia Robey Christian, its Managing Director, the H Street Playhouse will be renamed the "Anacostia Playhouse" after its move across the river. "We wanted to pay homage to the rich history and...

BUILDING COLLAPSES ON H STREET

Bustery winds on Saturday afternoon caused the third floor addition to collapse on a building located near the comer of H St. NE and 4th St. NE. Fire fighers responded in force. According to one source, the particular structure Post date: 09/10/2012 - 9:27am was undergoing...

SCANDAL MANAGENIENT 101
Post date: 09/05/2012 - 7:38am
If's September, and Mavor Vince Grav is still mavor. While in any normal





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Northeast Library Set to Close for a Year

September 12th, 2012 by Jay



Following on the heels of 7th Street NE) is about to Northeast Library (330 its recent exterior renovation, the

5:30pm on September 22nd. In anticipation of the library's closing, the renovation. The library will officially close at

Friends of the NE Library will host its final book sale on Saturday, September 15, from 10:30am to 2:30pm.

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overdue. The plan includes new plumbing, electric, and HVAC systems, If you have ever visited the NE Library (and chances are if you're a Hill resident, you have), you would likely agree that this renovation is long tough for the entire neighborhood, but when it re-opens it should be an as well as better lighting, more meeting space, roof repairs, and many other improvements. Losing the NE Library for a year is going to be even more valuable part of the community than it already has been.

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renovation of the NE Library to help deal with expected increased Southeast Library will observe expanded hours throughout the For those of you looking for your library fix after the 22nd, the

RECENT POSTS

- Book Party for "Capitol Hill Haunts" at The Argonaut Northeast Library Set to Close for a Year
- We made the cut! Vote for us! ■ Farmers Market Opens Today at Watkins Elementary School

close for at least a year to

undergo a massive \$10

million historic

Local Business Profile: Paul Roe of BritishInk Tattoos

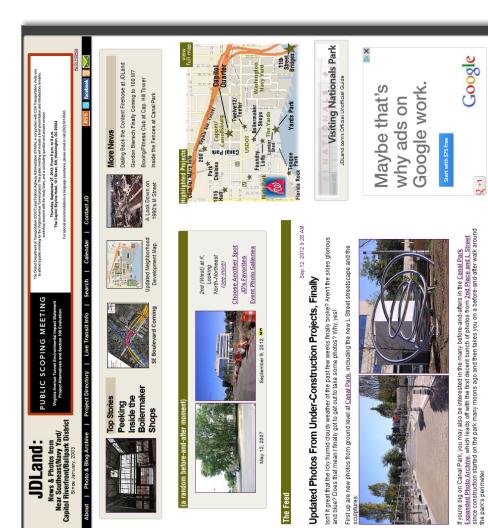
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- C_29 on Local Business Profile: Paul Roe of BritishInk Tattoos
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Public Meeting Virginia Avenue Tunnel Environmental Impact Statement & Section 106 Evaluation

CSX Transportation, Inc. (CSXT) has requested the District Department of Transportation (DDOT) to consider permits allowing CSXT the temporary usage of air rights in the vicinity of the Interstate 695/11th Street Bridges and for the potential temporary closure of the Southeast Freeway/I-695 ramp on 8th Street, SE. These actions would facilitate construction associated with the Virginia Avenue Tunnel. This request requires oversight and approval by the Federal Highway Administration (FHWA). DDOT and FHWA are developing an Environmental Impact Statement (EIS) to assess the impacts of the proposed CSXT Virginia Avenue Tunnel project to comply with the National Environmental Policy Act (NEPA). Effects to the historic resources from this project will also be assessed in compliance with the Section 106 of the National Historic Preservation Act.

A public meeting will be held for this project on:

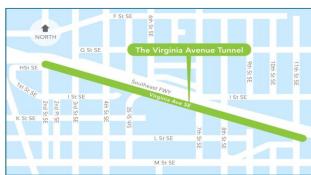
Thursday, September 27, 2012
From 6 p.m. to 8 p.m.
The Capitol Skyline Hotel
10 I Street, SW
Washington, DC 20024

This public meeting will include a brief presentation and introductory remarks, "breakout" workshop sessions with the study team, and a concluding question and answer session. **The introductory presentation will start very shortly after 6 p.m**. Both verbal and written comments will be taken at the meeting. Comment forms will be available at the public meeting and can be submitted on-site, via provided self-addressed/postage paid envelopes, or by email to contact@virginiaavenuetunnel.com.

Free parking will be provided at the parking lot underneath the Capitol Skyline Hotel, which can be accessed at the main entrance. The nearest Metro (Navy Yard, Green Line), is located six blocks away from the Capitol Skyline Hotel. In addition, free shuttle transportation services will be provided between the Arthur Capper Senior Apartments (900 5th Street, SE), Van Ness Elementary School (1150 5th Street, SE) and the Capitol Skyline Hotel. For more information about the free shuttle service call (202) 681-0646 or visit www.virginiaavenuetunnel.com.

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For more information please contact: Steve Plano Parsons Brinckerhoff 1401 K Street NW, Suite 701 Washington, DC 20005 www.virginiaavenuetunnel.com



July 31, 2013

VAT July 31, 2013 Public Hearing Notice Proof of Run 24 July 2013







APCO Print Campaign Proof Of Run

Washington Post Express (July 16)

THESDAY I BY IN 2013 I CIPRESS I B





NOTICE OF PUBLIC HEARING

three build alternatives are analyzed in the ICSS. A presented alternative has not been vectoral yet. The ICES also includes decommendate portunant to the recommental of Section 450 of the U.S. Department of Transportation for all 1964 and Section 1960 of the National Haston Presentation Act. The ICES at being measured and 45 days to police commenter. Present provide your comments by August 26, 2013. The ICES The Federal Highway Administration (FHWA) as the lead Federal agency and the District Department of Transportation (CCOT) are estimatering approved for the proposed another Continuous Trans. The Potock Estimated Administration, National Capital Parenty Commission, National Park Service, and U.S. Marine Copina are cooperating agencies for this project. A Draft Environmental Impat Statement ICES for this project has been proposed parament to the Mational Environmental Polity Act (MDRA). Impacts of a mobility and is positionin for download at service or proprietative maturesis com and hard capies are available for review at the following locations:

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A public hearing for the DEIS will be held on:

Wednesday, July 31, 2013 6:00 p.m. to 8:30 p.m.

TUESDAY | 07.18.2013 | EXPRESS

The forms posentiation will start at 6.15 p.m. 10 I (Eye) Street SW, Washington, DC 20024.

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[XS].

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Reconstrucción del Time: de la Normida Veginia abo de la Dellamordo del Immado Ambiantal Secritor 4/1 & Secritor 198 Evaluado La Administraciae Federal de Carreteras (FMMs) como apacia Federal Islan y al Departamento de Transporse del Distriu (DOCD) satisforcesistemedo aprobacione area la pisoposta de acentralección del Tuna da la la Apacida Vigora. La Administración Federal de Fernanciae, La Cerceido Mariona de Propasa de Apacida (Nacional Referent de Fernanciae). La Cerceido Mariona de Apacida de Apacida de Apacida de Mariona de Apacida de Apacida de Mariona de Apacida de Apacida de Mariona de Cerceido Mariona de Apacida Mariona de Apacida Apacida de Apacida Apacida de Apacida Ap

Federal Hopking, Mitristannian, 1990 K Street NW, Suite 310, Weekington, DC 20006-1103. Destret Destruction and Hopking No. 1990 See 155, 4th Roos, Weekington, DC 20003. Southeast Neighborhood Library, 403 7th See of SE, Westington, DC 20003. Southeast Neighborhood Library, 403 Yell See of SE, Westington, DC 20003.

Una sudernale publica para of DEIS se celebrary and

Milenates, Julie 31, 2013. 6:00 p.m. a 8:30 p.m. Capitol Sejies Hotel O I Eyel Seree 5W, Washington, DC 20024

La presentación formal comescara a las di 15 p.m.

Contrastantos verbales y excritos serán tomados en la reaction. Mismitros del publico tendrán la eportunidad de suministrar comentantes cratés cos base un el orden de fegado. Comentantos dentes puerden ser entingados en la reunión, por como regular a DDOT a la disocición anteriormante suministrada o por correo electrónico a contactibiliginalevenuetunnel com. Exterionamiento validado será suministrado en el estacontamiento debajo del Capitol Styline Hotel, el Cual puede ser accededo por la entrada principal. La estación de Metro mas cerciero últica verde, Navy Yand, salda Pall-Styline Hotel.

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PUBLIC HEARING Undains Avenue Tameri Recentraction
Draft Environmental Impact Statement, Section 4(8) 8 Section 106 Evaluation

A public hearing for the Diskl Environmental Impact Study will be held on:
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Neighborhood News

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There was a robbery on the 200 block of MSt. SW at 11:30 p.m. Appene with information concerning this crime is asked to call the police at 202-727-9099. Anonymous information can be barded to 50411, in Other News There was a burglary at an... seriore. Poet care, 07/19/2013 - 1:52pm

TWO ROBBERIES ON THE 1200 BLOCK OF D STREET NE

There was a violent sidewalk robbery on the 1200 block of D St. NE at 2:10 p.m. There was a sidewalk purse-snatching on the 1200 block of D St. NE at 7

Dental Group Norman J. Bouchard, D.D.S. Mexantila Thomson, D.M.D. Capitol Hill 202.863.1600 | www.chdg.net Susan Hidges, D.D.S. Sarah E. Bouchart, D.D.S. Subscribe to our mailing list ADVERTISEMENTS. Daily Updates from Hill Rag · In Office Whitening · Same Day Crowns estable address Invisalign We offer.

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If you need special accommodations or language assistance services, please email contactiving in avenue tunnel com or leave a message at (202) 681-9646. A public hearing for the Draft Environmental Impact Study will be held on: Wednesday, July 31, 2013 6:00 p.m. to 8:30 p.m. The Capitol Skyline Hotel, 10 I (Sye) Street SW, Weshington, DC 20024

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Ballpark Boathouse in Navy Yard Soft Opening

July 19th, 2013 by Guset Author - Capital Rivertenti Near Southeast

Saturday at 11am

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the Deputy Mayor for Planning office daily to get them to take and Economic Development's After over a year of bounding the steps necessary to open a vendor at Diamond Teague privately-run kayak rental

photo courtesy of David Garber

by Boston Outdoor Recreation,

Park, I'm happy to report that

the Ballpark Boathouse - run

Inc., the same company who runs the Key Bridge Boathouse — will finally be soft opening this weekend.

Avenue SE between Vards Park and Nats Stadium. This is pretty bis news for Diamond Toague Park is located at the corner of 1st Street SE and Potomac

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Near Southeast/Navy Yard/ Capitol Riverfront/Ballpark District News & Photos from

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Since January, 2003

Wednesday, July 31, 2013 6:00 p.m. to 8:30 p.m. The Capitol Skyline Hotel, 10 I (Eye) Street SW, Washington, DC 20024 Virginia Avenue Tunnel Recenstruction Dreft Environmental Impact Statement, Section 4(f) 8 Section 106 Evaluation

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(a random before-and-after moment

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DC Water Relocation Budget Funds Restored

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Jun 13, 2013 12-44 PM

Going Completely Off the Near Southeast Grid for a While

wanting/iseding to pull back from the biogging grind, but Lonly cyptically referred to what was the biggest When I purout word of my "semi-retirement" since last August, Histed a lot of reasons for my driver of my decision; my mother's illness.

enough, but within a tew months we also found her to be suffering from a remembering words, she was diagnosed with a form of dementia (FTD) form of ALS (Lou Gehig's Disease) that largeted her throat and mouth completely and caused other cognitive issues. This was devastating In early 2012, after a few morths of notiong her having problems that has left her memory intact but very quickly stole her speech muscles, swiftly affecting her ability to chew and swallow food.

could do about it. It's like the entire family has been riding in a car with no hands on the stearing wheel. This has been such a body blow, not only to see this woman so full of life from the moment of diagnosis that there was absolutely not a thing we and energy be stolen away from us week by week, butto have known

Because its a rare combination, and because every patient with these diseases progresses differently









Notice of Public Hearing Virginia Avenue Tunnel Reconstruction Draft Environmental Impact Statement, Section 4(f) & Section 106 Evaluation

The Federal Highway Administration (FHWA) as the lead Federal agency and the District Department of Transportation (DDOT) are considering approvals for the proposed reconstruction of Virginia Avenue Tunnel. The Federal Railroad Administration, National Capital Planning Commission, National Park Service, and U.S. Marine Corps are cooperating agencies for this project. A Draft Environmental Impact Statement (DEIS) for this project has been prepared pursuant to the National Environmental Policy Act (NEPA). The DEIS describes the purpose and need for the action; the alternatives being considered; the potential environmental and social impacts; proposed mitigation measures to address impacts; and the agency and public involvement activities. Impacts of a no-build and three build alternatives are analyzed in the DEIS. A preferred alternative has not been selected yet. The DEIS also includes documentation pursuant to the requirements of Section 4(f) of the U.S. Department of Transportation Act of 1966 and Section 106 of the National Historic Preservation Act. The DEIS is being released for 45 days for public comments. Please provide your comments by August 26, 2013. The DEIS is available for download at www.virginiaavenuetunnel.com and hard copies are available for review at the following locations:

Federal Highway Administration, 1990 K Street NW, Suite 510, Washington, DC 20006-1103 District Department of Transportation 55 M Street SE, 4th Floor, Washington, DC 20003 Southeast Neighborhood Library, 403 7th Street SE, Washington, DC 20003 Southwest Neighborhood Library, 900 Wesley Place SW, Washington, DC 20024

A public hearing for the DEIS will be held on:

Wednesday, July 31, 2013 6:00 p.m. to 8:30 p.m. Capitol Skyline Hotel 10 I (Eye) Street SW Washington, DC

The formal presentation will start at 6:15 p.m.

Both verbal and written comments will be taken at the meeting. Members of the public will be provided the opportunity to provide oral comments on a first-come-first-serve basis. Written comments can be submitted at the meeting, through regular mail to the DDOT address given above or via email to contact@virginiaavenuetunnel.com.

Validated parking will be provided in the parking lot underneath the Capitol Skyline Hotel, which can be accessed at the main entrance. The nearest Metrorail station (Green Line, Navy Yard, Half-Street exit) is located four blocks away from the Capitol Skyline Hotel. In addition, free shuttle transportation services will be provided between the Arthur Capper Senior Apartments (900 5th Street SE), Van Ness Elementary School (1150 5th Street SE) and the Capitol Skyline Hotel. For more information about the free shuttle service call (202) 681-0646 or visit www.virginiaavenuetunnel.com.

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